Mathematical Reviews

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Annual Index – 1982

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(As used in Mathematical Reviews beginning in 1980)

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08 General mathematical systems

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92 Biology and behavioral sciences
93 Systems theory; control
94 Information and communication, circuits

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(Sudakov, V. N.) *See* **Problems of the theory of probability distributions, (82c:60025)**
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Distributions ★Проблемы теории вероятностных распределений. VI. (Russian) [Problems of the theory of probability distributions. VI] **(82c:60025)**
Estimation of time series analysis—theory and applications ★Estimation of time series analysis—theory and applications. (Japanese) **(82i:62005)**
Physics ★Quantum fields—algebras, processes. **(82b:81006)**
Problems of the theory of probability distributions ★Проблемы теории вероятностных распределений. VI. (Russian) [Problems of the theory of probability distributions. VI] **(82c:60025)**
Quantum fields—algebras, processes ★Quantum fields—algebras, processes. **(82b:81006)**
Symposium:
Bielefeld, Encounters in Physics and Mathematics ★Quantum fields—algebras, processes. **(82b:81006)**
Estimation of Time Series Analysis—Theory and Applications ★Estimation of time series analysis—theory and applications. (Japanese) **(82i:62005)**

60Axx Foundations of probability theory

Jeffreys, Harold Some general points in probability theory. (*See* **82d:62170**)

60A05 Axioms; other general questions

Bunge, Mario Four concepts of probability. **82m:60002**
Carnal, Étienne Indépendance conditionnelle permutable. (English summary) **82c:60006**
Dale, A. I. Probability, vague statements and fuzzy sets. **82d:60005**
Düsberg, Klaus Jürgen Zur Kritik einer neuen Definition von "Wahrscheinlichkeit". **82d:60006**
de Finetti, Bruno The role of "Dutch Books" and of "proper scoring rules". **82i:60005**
Ivan, Floarea On the basis of the vector space of separators. (Romanian. French summary) **82f:60012**
Kampé de Fériet, J. Une interprétation des mesures de plausibilité et de crédibilité au sens de G. Shafer et de la fonction d'appartenance définissant un ensemble flou de L. Zadeh. **82m:60003**
Link, Godehard Representation theorems of the de Finetti type for (partially) symmetric probability measures. **82d:60007**
Mels, T. A functional approach to the basic concepts of the theory of probability. (Russian. English summary) **82d:60008**
Nomakuchi, Kentaro Sufficient condition for existence of conditional qualitative probability. **82b:60003**
von Plato, Jan Reductive relations in interpretations of probability. **82j:60005**
Scozzafava, Romano The initial digit of statistical data: its frequency and probability. (Italian) **82d:60009**
Shafer, Glenn Constructive probability. **82j:60006**
Spohn, Wolfgang Stochastic independence, causal independence, and shieldability. **82a:60007**
Wakker, Peter Agreeing probability measures for comparative probability structures. **82i:60006**

secondary classifications:

Antonec, M. A. (*with* Cvetkov, A. A.) Projective limits of Borel measures and A. G. Sigalov's theorem on the representation of an algebra of random variables. (Russian) **(82d:28010)**
Armendt, Brad Is there a Dutch Book argument for probability kinematics? **(82m:03024)**
Balbo, Gianfranco *See* **Bruell, Steven C., (82a:68059)**
Bruell, Steven C. (*with* Balbo, Gianfranco) ★Computational algorithms for closed queueing networks. **(82a:68059)**
(Buffon, Georges Louis) *See* **Holgate, Philip, (82m:01040)**
Coletti, Giulianella (*with* Regoli, Giuliana) On the distribution function of a finitely additive probability measure. (Italian. English summary) **(82j:60029)**
Colonius, Hans Representation and uniqueness of the Bradley-Terry-Luce model for pair comparisons. **(82h:62005)**
Cvetkov, A. A. *See* **Antonec, M. A., (82d:28010)**
Daston, Lorraine J. Probabilistic expectation and rationality in classical probability theory. (French and German summaries) **(82c:01020)**
Domotor, Zoltan (*with* Zanotti, Mario; Graves, Henson) Probability kinematics. **(82a:94035)**
Fenstad, Jens Erik The structure of probabilities defined on first-order languages. **(82d:03032)**
Fetzer, James H. (*with* Nute, Donald E.) A probabilistic causal calculus: conflicting conceptions. **(82k:03024a)**
(*with* Nute, Donald E.) Errata to: "A probabilistic causal calculus: conflicting conceptions". **(82k:03024b)**
Fisher, R. A. (*with* Lane, David A.) Fisher, Jeffreys, and the nature of probability. **(82m:01061)**
Good, Irving J. The weight of evidence provided by uncertain testimony or from an uncertain event. **(82m:03026)**
Graves, Henson *See* **Domotor, Zoltan; et al., (82a:94035)**
Hinds, W. E. *See* **Kotlarski, I. I., (82f:60042)**
Hisdal, Ellen Developments in the wake of the theory of possibility. **(82a:94134)**
Holgate, Philip Studies in the history of probability and statistics. XXXIX. Buffon's cycloid. **(82m:01040)**
Ivan, Floarea Convex sum functions. (Romanian) **(82a:28006)**
Jørsboe, Ole Groth On finitely-additive probability measures. (Danish. English summary) **(82a:28002)**
Kostjuk, V. N. Probability and the problem of induction. **(82m:01042)**
Kotlarski, I. I. (*with* Hinds, W. E.) Characterizations using intersections of random events. **(82f:60042)**
Kuipers, Theo A. F. ★Studies in inductive probability and rational expectation. **(82f:03018)**
A survey of inductive systems. **(82f:03019)**
Landers, Dieter (*with* Rogge, Lothar) Characterization of conditional expectation operators for Banach-valued functions. **(82e:60006)**
Lane, David A. *See* **Fisher, R. A., (82m:01061)**
Lewis, David K. A subjectivist's guide to objective chance. **(82f:03007)**
Muir, A. Fuzzy sets and probability. **(82j:03071)**
Niculescu, Ştefan P. On the law of large numbers in universal semifields. **(82j:60048)**
Nute, Donald E. *See* **Fetzer, James H., (82k:03024a)** *and* **(82k:03024b)**
Pflug, Georg The equivalence of the Bishop-de Leeuw and the Pigou-Dalton order structures of measures. (Italian summary) **(82k:28004)**
Regoli, Giuliana *See* **Coletti, Giulianella, (82j:60029)**
Rogge, Lothar *See* **Landers, Dieter, (82e:60006)**
Ryder, J. M. Consequences of a simple extension of the Dutch Book argument. **(82m:03029)**
Sudderth, William D. Finitely additive priors, coherence and the marginalization paradox. **(82d:62008)**
Tuomela, Raimo Inductive explanation. **(82m:03032)**
Zanotti, Mario *See* **Domotor, Zoltan; et al., (82a:94035)**
Studies in the history of probability and statistics *See* **Holgate, Philip, (82m:01040)**

60A10 Probabilistic measure theory {For ergodic theory, see 28Dxx and 60Fxx.}

Blackwell, David There are no Borel SPLIFs. **82d:60010**
Fontes de Sousa, Maria de Fátima On conditional probabilities and σ-finite measures. (Portuguese) **82a:60008**
Kappos, D. A. A kind of random (=stochastic) integral. **82m:60004**
Karr, A. F. Some inverse problems involving conditional expectations. **82j:60007**
Kozek, Andrzej (*with* Suchanecki, Zdzisław) Conditional expectations of selectors and Jensen's inequality. **82m:60005**
Ramachandran, D. A note on regular conditional probabilities in Doob's sense. **82k:60007**
Sokal, Alan D. Existence of compatible families of proper regular conditional probabilities. **82h:60006**
Suchanecki, Zdzisław *See* **Kozek, Andrzej, 82m:60005**
Valadier, Michel Sur l'espérance conditionnelle multivoque non convexe. **82a:60009**
Veksler, A. S. Statistical ergodic theorem and statistical convergence of martingales in symmetric spaces. (Russian) **82k:60008**

secondary classifications:

Tjur, Tue ★Probability based on Radon measures. **(82b:60032)**
Valadier, Michel Structure des atomes conditionnels d'un espace de probabilité. **(82f:28002)**

60A99 None of the above, but in this section

Kofler, Eduard (*with* Menges, Günter) Über unscharfe Mengen (nicht im Sinne Zadehs). (English, French and Russian summaries) **82a:60010**
Loyer, Milton W. Equally likely, exhaustive and independent events. **82a:60011**
Menges, Günter *See* **Kofler, Eduard, 82a:60010**
Mugur-Schächter, Mioara Le concept nouveau de fonctionnelle d'opacité d'une statistique. Étude des relations entre la loi des grands nombres, l'entropie informationnelle et l'entropie statistique. **82a:60012**

secondary classifications:

Banon, G. Distinction between several subsets of fuzzy measures. **(82i:28003)**
Ferenczi, M. On valid assertions—in probability logic. **(82c:03026)**
de Finetti, Bruno Ambiguity of jargon and underlying ambiguity in the field of probability. (Italian) **(82g:00006)**
Ivan, Floarea Minimal Markov processes with continuous time in the framework of the theory of sum functions. II. (Romanian. French summary) **(82e:60113)**
Klement, Erich Peter Characterization of fuzzy measures by classical measures. **(82j:28004)**
Koumoullis, G. On perfect measures. **(82i:28017)**
Paulos, John A. Probabilistic, truth-value, and standard semantics and the primacy of predicate logic. **(82b:03051)**
Yager, Ronald R. Some observations on probabilistic qualification in approximate reasoning. **(82c:03032)**

60Bxx Probability theory on algebraic and topological structures

60B05 Probability measures on topological spaces

Hò Đăng Phúc (*with* Nguyễn Văn Thu) Universal random distributions. (Vietnamese. English summary) **82k:60009**
Hwang, Chii Ruey A generalization of Laplace's method. **82h:60007**
Nguyễn Văn Thu *See* **Hò Đăng Phúc, 82k:60009**
Noebels, R. A note on stochastic order of probability measures and an application to Markov processes. (German summary) **82j:60008**
Sultanbekov, F. F. Random functionals on the space of strongly measurable functions. (Russian) **82i:60007**

secondary classifications:

Byczkowski, T. (*with* Inglot, T.) The invariance principle for vector-valued random variables with applications to functional random limit theorems. **(82j:60009)**
Heyde, C. C. Invariance principles in statistics. (French summary) **(82k:60067)**
Inglot, T. *See* **Byczkowski, T., (82j:60009)**
Kuznecov, S. E. Any Markov process in a Borel space has a transition function. (Russian. English summary) **(82d:60131)**
Račev, S. The Lévy-Prohorov distance in a space of semicontinuous set functions. (Russian) **(82h:60009)**
Rao, B. V. (*with* Yamada, Sakutarō) Note on a problem of Diepenbrock. **(82b:28026)**
Sverdrup-Thygeson, Harald Strong law of large numbers for measures of central tendency and dispersion of random variables in compact metric spaces. **(82h:60031)**
Yamada, Sakutarō *See* **Rao, B. V., (82b:28026)**

60B10 Convergence of probability measures

Aničkin, S. A. *See* **Kalašnikov, V. V., 82e:60003**
Bergström, Harald On weak convergence of sequences of measures. **82i:60008**
Butzer, P. L. (*with* Hahn, L.; Roeckerath, M. Th.) Stable limit law and weak law of large numbers for Hilbert space with "large-$\mathcal{O}$" rates. **82h:60008**
Byczkowski, T. (*with* Inglot, T.) The invariance principle for vector-valued random variables with applications to functional random limit theorems. **82j:60009**
Davydov, Ju. A. Strong convergence of distributions of functionals of stochastic processes. I. (Russian. English summary) **82j:60010a**
Strong convergence of distributions of functionals of stochastic processes. II. (Russian. French summary) **82j:60010b**
Fernique, Xavier Sur le théorème de Kantorovitch-Rubinstein dans les espaces polonais. **82j:60011**
Fichtner, Karl-Heinz (*with* Kerstan, Johannes) Asymptotische Invarianz bei Halbgruppen stochastischer Kerne. I. **82d:60011a**
See also **Kerstan, Johannes, 82d:60011b**
Grigorevskiĭ, N. V. Ideal metrics and products of independent random variables. (Russian) **82e:60002**
Hahn, L. *See* **Butzer, P. L.; et al., 82h:60008**
Hwang, Chii Ruey Laplace's method revisited: weak convergence of probability measures. **82c:60007**
Inglot, T. *See* **Byczkowski, T., 82j:60009**
Ivanoff, B. Gail The function space $D(0,\infty)^q, E)$. (French summary) **82j:60012**
Kalašnikov, V. V. Investigation of the continuity of random sequences by the construction of "proximity points". (Russian) **82g:60005**
(*with* Aničkin, S. A.) Continuity of random sequences and approximation of Markov chains. **82e:60003**
Kerstan, Johannes (*with* Fichtner, Karl-Heinz) Asymptotische Invarianz bei Halbgruppen stochastischer Kerne. II. **82d:60011b**
See also **Fichtner, Karl-Heinz, 82d:60011a**
Kučkarov, Ja. H. Probability distributions in $C[0,1]$ with values in spaces of measurable functions. (Russian) **82f:60013**
Lebedev, V. A. A weak compactness condition for semimartingales. (Russian) **82d:60012**
Leonenko, M. M. Convergence of probability measures induced by homogeneous random fields. (Russian. English summary) **82a:60013**
Morkvėnas, R. On weak compactness of the sets of multiparameter stochastic processes. **82j:60013**
Račev, S. The Lévy-Prohorov distance in a space of semicontinuous set functions. (Russian) **82h:60009**
Roeckerath, M. Th. *See* **Butzer, P. L.; et al., 82h:60008**
Rolski, Tomasz On random discrete distributions. (Polish summary) **82f:60014**
Šlosman, S. B. Limit theorems of probability theory for compact topological groups. (Russian. English summary) **82f:60015**
Vervaat, Wim Une compactification des espaces fonctionnels C et D; une alternative pour la démonstration de théorèmes limites fonctionnels. (English summary) **82c:60008**
Zolotarev, V. M. General problems of the stability of mathematical models. (French summary) **82f:60016**

secondary classifications:

Eršov, M. P. Weak compactness of continuous semimartingales. (Russian. English summary) **(82f:60114)**
Fomin, A. S. An arithmetical method of proof of a local theorem for series of independent integer random vectors. (Russian) **(82a:60026)**
Helland, Inge S. Minimal conditions for weak convergence to a diffusion process on the line. **(82f:60068)**
Herrmann, Horst Asymptotische Gleichverteilung von Summen unabhängiger Zufallsgrößen. (Russian and English summaries) **(82b:60016)**
Ibero, Michel Approximations d'intégrales stochastiques empiriques multidimensionnelles. (English summary) **(82j:60045)**
Ivanov, O. V. (*with* Leonenko, M. M.) On the invariance principle for estimating the correlation function of a uniform isotropic random field. (Russian) **(82k:60116)**
Jacod, Jean (*with* Mémin, Jean) Un nouveau critère de compacité relative pour une suite de processus. **(82k:60110)**
Janssen, Arnold Some remarks on P. Lévy's theorem for a net of discrete measures and the purity law on locally compact semigroups. **(82b:60007)**
Jurek, Zbigniew J. On stability of probability measures in Euclidean spaces. **(82f:60045)**
Kurtz, Thomas G. ★Approximation of population processes. **(82j:60160)**
Lebedev, V. A. Relative compactness of families of distributions of semimartingales. (Russian. English summary) **(82d:60086)**
Leonenko, M. M. *See* **Ivanov, O. V., (82k:60116)**
McKennon, Kelly (*with* Richardson, Gary D.) Convergence of certain probability distribution functions. **(82b:46029)**
Mémin, Jean *See* **Jacod, Jean, (82k:60110)**
Moynihan, Richard Conjugate transforms and limit theorems for τ_T semigroups. **(82e:60027)**
Nikunen, Martti Weak compactness of a family of measures corresponding to continuous strong Markov processes. (Russian. English summary) **(82d:60132)**
Pinelis, I. F. A problem of large deviations in a space of trajectories. (Russian. English summary) **(82k:60060)**
Richardson, Gary D. *See* **McKennon, Kelly, (82b:46029)**
Solev, V. N. Letter to the editors: "Absolutely regular trajectories in Hilbert space" [Zap. Naučn. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI) **22** (1971), 139–160; MR **46** #9721]. (Russian) **(82i:46056)**
Wellner, Jon A. A Glivenko-Cantelli theorem for empirical measures of independent but nonidentically distributed random variables. **(82k:60054)**

60B11 Probability theory on linear topological spaces [See also 28C20.]

Byczkowski, T. (*with* Żak, T.) Asymptotic properties of semigroups of measures on vector spaces. **82d:60013**
Chung, Dong M. Characterizations of r-semistable probability measures on Hilbert spaces. **82f:60017**
Đặng Hùng Thắng (*with* Nguyễn Duy Tiến) On symmetric stable measures with discrete spectral measure on Banach spaces. **82f:60018**
(*with* Nguyễn Duy Tiến) On the extension of stable cylindrical measures. **82k:60010**
(*with* Nguyễn Duy Tiến) On the convergence of martingales and geometric properties of Banach spaces. (Russian. English summary) **82m:60006**
Deo, Chandrakant M. On Wiener random fields in a Banach space. **82i:60009**
Egorov, A. D. Approximate formulas for integrals on the Gaussian measure with the correlation operator $(A+B)^{-1}$. (Russian. English summary) **82i:60010**
Fremlin, D. H. (*with* Talagrand, Michel) A Gaussian measure on l^∞. **82i:60011**
Gadžiev, V. G. On an inversion formula for a Fourier transform of functions of an infinite number of variables. (Russian. English summary) **82f:60019**
Jajte, Ryszard S-decomposable measures on Hilbert spaces. (Russian summary) **82c:60009**
V-decomposable measures on Hilbert spaces. **82i:60012**
Jurek, Zbigniew J. A representation of the characteristic functions of stable distributions in Hilbert spaces. **82e:60004**
(Kotlarski, I. I.) *See* **Vahanija, N. N., 82i:60015**
Krakowiak, W. Operator-stable probability measures on Banach spaces. **82c:60010**
Krapavickaitė, D. Generalized semistable probability distribution in Hilbert space. (Russian. Lithuanian and English summaries) **82d:60014**
Some classes of probability distributions. (Russian. Lithuanian and English summaries) **82e:60005**
Kühn, Thomas (*with* Linde, Werner) Gaußsche Kovarianzoperatoren in $L_p(v)$, $1 \leqslant p < \infty$. (Russian and English summaries) **82h:60004**
Kwapień, Stanisław (*with* Szymański, Bogusław) Some remarks on Gaussian measures in Banach spaces. **82h:60010**
Landers, Dieter (*with* Rogge, Lothar) Characterization of conditional expectation operators for Banach-valued functions. **82e:60006**
Laprestė, Jean-Thierry Charges, poids et mesures de Lévy dans les espaces vectoriels localement convexes. **82f:60020**
Linde, Werner *See* **Kühn, Thomas, 82b:60004**
Lipovan, Octavian On probability measures in subspaces of the Banach space of bounded real measures. (Romanian. French summary) **82g:60006**
The topological supports of Gaussian probability measures in subspaces of spaces of real bounded measures. (Romanian. French summary) **82g:60007**
Gaussian probability measures, in subspaces of the Banach space of bounded real measures. (Romanian. French summary) **82g:60008**
Louie, Donald (*with* Rajput, Balram S.) Support and seminorm integrability theorems for r-semistable probability measures on LCTVS. **82i:60013**
Muštari, D. H. Spaces in which criteria of the Bochner and Lévy type are satisfied. (Russian) **82c:60011**
Cylindrical probabilities, criteria for countable additivity and carriers. (Russian) **82c:60012**
A remark on necessary and sufficient topologies. (Russian. French summary) **82d:60015**
Nguyễn Duy Tiến (*with* Weron, Aleksander) Banach spaces related to α-stable measures. **82h:60011**
See **Đặng Hùng Thắng, 82f:60018; 82k:60010** *and* **82m:60006**
Nguyễn Văn Thu A characterization of some probability distributions. **82f:60021**
Okazaki, Yoshiaki Quotient and induced topologies of the S-topology on a Banach space. **82m:60007**
Gaussian measure on topological vector space. **82m:60008**
Harmonic analysis in a Banach space. **82m:60009**
Ostrovskiĭ, E. I. On the supports of probability measures in separable Banach spaces. (Russian) **82c:60013**
A characterization of probability measures in Banach space by two-dimensional cylindrical distributions. (Russian. English summary) **82k:60011**
Račkauskas, A. Asymptotic analysis of probability measures in Banach spaces. (Russian. Lithuanian and English summaries) **82a:60014**
A family of stable measures in some Banach spaces. (Russian. Lithuanian and English summaries) **82h:60012**
Rajput, Balram S. *See* **Louie, Donald, 82i:60013**
Richter, Matthias Dominierbarkeit Gaußscher statistischer Strukturen in Hilberträumen und Berechnung der Likelihood-Funktion. **82e:60007**
Rogge, Lothar *See* **Landers, Dieter, 82e:60006**
Rosiński, Jan (*with* Suchanecki, Zdzisław) On the space of vector-valued functions integrable with respect to the white noise. **82g:60009**
Satô, Hiroshi Gaussian measurable dual and Bochner's theorem. **82k:60012**
Słowikowski, W. Concerning pre-supports of linear probability measures. **82a:60015**
Soler, J.-L. Some results for the quadratic analysis of Gaussian processes and applications. **82d:60016**

Suchanecki, Zdzisław *See* **Rosiński, Jan**, **82g:60009**

Sytaja, G. N. On the problem of the asymptotic behavior of a Wiener measure of small spheres in the uniform metric. (Russian) **82f:60022**

Szulga, Jerzy Lattice moments of random vectors. (Russian summary) **82k:60013**

Szymański, Bogusław *See* **Kwapień, Stanisław**, **82h:60010**

Talagrand, Michel *See* **Fremlin, D. H.**, **82i:60011**

Tarieladze, V. I. On nuclear covariance operators. **82i:60014**
See also **Vahanija, N. N.; et al.**, **82g:60010**

Tortrat, Albert *See* **Vahanija, N. N.; et al.**, **82g:60010**

Vahanija, N. N. ★Probability distributions on linear spaces. **82i:60015**
(*with* Tarieladze, V. I.; Tortrat, Albert) Continuity of random linear functions. (Russian. English summary) **82g:60010**

Weron, Aleksander *See* **Nguen Zuĭ Tien**, **82h:60011**

Żak, T. *See* **Byczkowski, T.**, **82d:60013**

Zhao, Zhong Xin Quasilinear transformation in abstract Wiener spaces. **82g:60011**

secondary classifications:

Chung, Dong M. (*with* Rajput, Balram S.) Equivalent Gaussian measure whose R-N derivative is the exponential of a diagonal form. **(82j:60069)**

Čobanjan, S. A. *See* **Linde, Werner; et al.**, **(82b:28027)**

Čuprunov, A. N. Nonmeasurable subspaces. (Russian) **(82a:28013)**

Dor, L. E. (*with* Starbird, T.) Projections of L_p onto subspaces spanned by independent random variables. **(82e:46043)**

Egghe, Leo A new characterization of Banach spaces X for which every operator in $\mathcal{L}(L^1, X)$ is completely continuous. **(82d:46033)**

Goodman, V. (*with* Kuelbs, J.; Zinn, Joel) Some results on the LIL in Banach space with applications to weighted empirical processes. **(82m:60011)**

Gorgadze, Z. G. (*with* Tarieladze, V. I.) On geometry of Orlicz spaces. **(82h:46049)**

Kondrat′ēv, Ju. G. (*with* Samoĭlenko, Ju. S.) Generalized derivatives of probability measures on $\mathbf{R}^\infty$. (Russian) **(82m:28028)**

König, Hermann (*with* Tzafriri, L.) Some estimates for type and cotype constants. **(82j:46022)**

Kotelenez, P. Local behaviour of Hilbert space valued stochastic integrals and the continuity of mild solutions of stochastic evolution equations. **(82h:60107)**

Koval′čik, Ī. M. Linear operator equations and a continual integral with respect to a Gaussian measure. (Russian. English summary) **(82f:47018)**

Kuelbs, J. *See* **Goodman, V.; et al.**, **(82m:60011)**

Kühn, Thomas (*with* Linde, Werner) The r-nuclearity $(0<r\leqslant 1)$ of Gaussian covariances. **(82b:47024)**
γ-summing operators in Banach spaces of type p $(1<p\leqslant 2)$ and cotype q $(2\leqslant q<\infty)$. (Russian summary) **(82g:47016)**

Linde, Werner (*with* Mandrekar, V.; Weron, Aleksander) p-stable measures and p-absolutely summing operators. **(82i:47029)**
(*with* Tarieladze, V. I.; Čobanjan, S. A.) Characterization of certain classes of Banach spaces by properties of Gaussian measures. (Russian. English summary) **(82b:28027)**
See also **Kühn, Thomas**, **(82b:47024)**

Maeda, Michie Rotation-invariant cylindrical measures. **(82e:28017)**

Mandrekar, V. *See* **Linde, Werner; et al.**, **(82i:47029)**

Mitoma, Itaru On the norm continuity of $\mathcal{S}'$-valued Gaussian processes. **(82h:60070)**

Muštari, D. H. Spaces of cotype p $(0\leqslant p\leqslant 2)$. (Russian. French summary) **(82d:46029)**

Okazaki, Yoshiaki Bochner's theorem on measurable linear functionals of a Gaussian measure. **(82m:28029)**
Bochner problem on a topological vector space with a quasi-invariant measure. **(82i:46059)**

Paulauskas, V. I. (*with* Račkauskas, A.) Infinitely divisible and stable laws in separable Banach spaces. II. (Russian. Lithuanian and English summaries) **(82h:60016)**

Račkauskas, A. *See* **Paulauskas, V. I.**, **(82h:60016)**

Rajput, Balram S. *See* **Chung, Dong M.**, **(82j:60069)**

Samoĭlenko, Ju. S. *See* **Kondrat′ēv, Ju. G.**, **(82m:28028)**

Šatašvili, A. D. *See* **Sohadze, G. A.**, **(82i:60067)**

Schmidt, Franz On moving average representations of Banach-space valued stationary processes over LCA groups. **(82i:60060)**

Sohadze, G. A. (*with* Šatašvili, A. D.) Nonlinear transformations of Gaussian measures in Hilbert space. (Russian) **(82i:60067)**

Starbird, T. *See* **Dor, L. E.**, **(82e:46043)**

Sztencel, Rafał A probabilistic characterization of unconditionally summing operators. **(82i:47033)**

Szulga, Jerzy Regularity of Banach lattice valued martingales. **(82d:60082)**

Tarieladze, V. I. *See* **Linde, Werner; et al.**, **(82b:28027)** *and* **Gorgadze, Z. G.**, **(82h:46049)**

Tzafriri, L. *See* **König, Hermann**, **(82j:46022)**

Valadier, Michel On conditional expectation of random sets. **(82h:60028)**

Weron, Aleksander *See* **Linde, Werner; et al.**, **(82i:47029)**

Yamasaki, Yasuo Translationally invariant measure on the infinite-dimensional vector space. **(82c:28029)**

Zinn, Joel *See* **Goodman, V.; et al.**, **(82m:60011)**

Zolotarev, V. M. The problem of stability of a class of problems of characterization of distributions and a lemma of Ju. R. Gabovič. (Russian) **(82f:60049)**

60B12 Limit theorems for vector-valued random variables (infinite-dimensional case)

Abaurrea, J. (*with* San Miguel, M.) Unconditional basic sequences of random variables in $L^p(E)$. **82g:60012**

de Acosta, Alejandro Strong exponential integrability of sums of independent B-valued random vectors. **82i:60016**

de Araujo, Aloisio (*with* Giné, Evarist; Mandrekar, V.; Zinn, Joel) On the accompanying laws theorem in Banach spaces. **82i:60017**

Azlarov, T. A. (*with* Volodin, N. A.) Laws of large numbers for identically distributed Banach space valued random variables. (Russian) **82e:60008**
(*with* Volodin, N. A.) The laws of large numbers for identically distributed Banach space-valued random variables. (Russian. English summary) **82k:60014**

Bellow, Alexandra (*with* Egghe, Leo) Inégalités de Fatou généralisées. (English summary) **82f:60023**

Bernotas, V. Uniform and nonuniform estimates of the closeness of distributions of two normalized sums of independent random variables with values in certain Banach spaces. (Russian. Lithuanian and English summaries) **82e:60009**

Buldigin, V. V. Random elements and their convergence in topological spaces. (Russian. English summary) **82e:60010**

Csenki, Attila *See* **Eberlein, Ernst**, **82d:60018**

Đặng Hùng Thắng (*with* Nguyễn Duy Tiến) On symmetric stable measures on spaces l_p $(1\leqslant p<+\infty)$. (Russian) **82f:60024**

De Dominicis, Rodolfo Weak law of large numbers for random fields of random elements. (Russian summary) **82k:60015**

Eberlein, Ernst An invariance principle for lattices of dependent random variables. **82d:60017**
(*with* Csenki, Attila) A note on strongly mixing lattices of random variables. **82d:60018**

Egghe, Leo *See* **Bellow, Alexandra**, **82f:60023**

Ellis, Richard S. (*with* Rosen, Jay S.) Laplace's method for Gaussian integrals with an application to statistical mechanics. **82m:60010**

Giné, Evarist (*with* León, José R.) On the central limit theorem in Hilbert space. **82d:60019**
Domains of partial attraction in several dimensions. (French summary) **82f:60025a**
Correction to: "Domains of partial attraction in several dimensions". **82f:60025b**
See also **de Araujo, Aloisio; et al.**, **82i:60017**

Goodman, V. (*with* Kuelbs, J.; Zinn, Joel) Some results on the LIL in Banach space with applications to weighted empirical processes. **82m:60011**

Hồ Đăng Phúc Universal distribution for infinitely divisible distributions on Fréchet space. **82k:60018**

Jakubowski, Jacek (*with* Kwapień, Stanisław) On multiplicative systems of functions. (Russian summary) **82e:60014**

Jurek, Zbigniew J. Limit distributions for sums of shrunken random variables. **82i:60018**

Jurinskiĭ, V. V. Estimation of the error of normal approximation for the probability of hitting a ball. (Russian) **82i:60019**

Kuelbs, J. (*with* Philipp, Walter) Almost sure invariance principles for partial sums of mixing B-valued random variables. **82i:60020**
When is the cluster set of S_n/a_n empty? **82h:60013**
See also **Goodman, V.; et al.**, **82m:60011**

Kukuš, O. G. Weak convergence of measures and convergence of cumulants. (Russian. English summary) **82i:60021**

Kvaracheliia, V. V. On unconditional convergence of random series in Banach spaces. **82i:60022**

Kwapień, Stanisław *See* **Jakubowski, Jacek**, **82c:60014**

Laha, R. G. (*with* Rohatgi, V. K.) Fourier transform methods in the study of limit theorems in a Hilbert space. **82h:60014**

Ledoux, Michel La loi du logarithme itéré bornée dans les espaces de Banach. **82i:60023**
Loi du logarithme itéré dans $\mathcal{C}(S)$ et fonction caractéristique empirique. (English summary) **82g:60013**

León, José R. *See* **Giné, Evarist**, **82d:60019**

Macak, Ī. K. (*with* Pličko, A. M.) Sums of independent random variables in Banach spaces. (Russian. English summary) **82h:60015**
Continuity of a random process on a compactum and the central limit theorem in $C(S)$. (Russian. English summary) **82j:60014**

Mandrekar, V. (*with* Zinn, Joel) Central limit problem for symmetric case: convergence to non-Gaussian laws. **82f:60026**
See also **de Araujo, Aloisio; et al.**, **82i:60017**

Millet, Annie (*with* Sucheston, Louis) On convergence of L_1-bounded martingales indexed by directed sets. **82k:60016**

Nguyễn Duy Tiến *See* **Đặng Hùng Thắng**, **82f:60024**

Nguyễn Văn Thu A new version of Doeblin's theorem. **82k:60017**

Paulauskas, Vygantas The rates of convergence in the central limit theorem in Banach spaces. **82i:60024**
Estimate of the rate of convergence in the central limit theorem in l_p spaces. (Russian. Lithuanian and English summaries) **82g:60014**

Paulauskas, V. I. (*with* Račkauskas, A.) Infinitely divisible and stable laws in separable Banach spaces. II. (Russian. Lithuanian and English summaries) **82h:60016**

Philipp, Walter *See* **Kuelbs, J.**, **82i:60020**

Pličko, A. M. *See* **Macak, Ī. K.**, **82h:60015**

Prakasa Rao, B. L. S. Remarks on the bounds for partial sums of random elements in Banach spaces of type p. (Russian summary) **82i:60025**

Račkauskas, A. *See* **Paulauskas, V. I.**, **82h:60016**

Rohatgi, V. K. *See* **Laha, R. G.**, **82h:60014**

Rosen, Jay S. *See* **Ellis, Richard S.**, **82m:60010**

San Miguel, M. *See* **Abaurrea, J.**, **82g:60012**

Senatov, V. V. Some lower bounds for the rate of convergence in the central limit theorem in Hilbert space. (Russian) **82e:60011**

Smolenski, W. A new proof of the zero-one law for stable measures. **82h:60017**

Sucheston, Louis *See* **Millet, Annie**, **82k:60016**

Sudakov, V. N. On the limit distribution "in the large" of linear functionals over a random process of the second order. (Russian. English summary) **82e:60012**

Sundaresan, K. (*with* Woyczyński, Wojbor A.) Laws of large numbers and Beck convexity in metric linear spaces. **82h:60018**

Ul′janov, V. V. Estimation of the convergence rate in the central limit theorem in a separable real Hilbert space. (Russian) **82d:60020**
On improving estimates of the closeness of two distributions of sums of random variables with values in Banach spaces. (Russian) **82h:60019**

Volodin, N. A. *See* **Azlarov, T. A.**, **82e:60008** *and* **82k:60014**

Woyczyński, Wojbor A. On Marcinkiewicz-Zygmund laws of large numbers in Banach spaces and related rates of convergence. **82i:60026**
See also **Sundaresan, K., 82h:60018**
Zhang, Yin Nan On a necessary and sufficient condition for the existence of quasi-invariant measures. (Chinese. English summary) **82g:60015**
Zinn, Joel *See* **Mandrekar, V., 82f:60026**; **de Araujo, Aloisio; et al., 82i:60017** *and* **Goodman, V.; et al., 82m:60011**

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Ahmad, Ibrahim A. On the law of large numbers for dependent variables. **(82i:60036)**
Borovkov, A. A. (*with* Sahanenko, A. I.) Estimates for the convergence rate in the invariance principle for Banach spaces. (Russian. English summary) **(82c:60060)**
Butzer, P. L. (*with* Hahn, L.) A probabilistic approach to representation formulae for semigroups of operators with rates of convergence. **(82g:47028)**
Egghe, Leo Strong convergence of pramarts in Banach spaces. **(82m:60052)**
Etemadi, N. An elementary proof of the strong law of large numbers. **(82b:60027)**
Gol'dštein, M. Š. Convergence of conditional mathematical expectations in von Neumann algebras and its application to the strong law of large numbers. (Russian) **(82f:46069)**
The strong law of large numbers for sequences of noncommutative random variables. (Russian) **(82f:46070)**
The strong law of large numbers for sequences of noncommutative random variables. (Russian) **(82a:46077)**
Hahn, L. *See* **Butzer, P. L., (82g:47028)**
Hahn, Marjorie G. (*with* Klass, Michael J.) The generalized domain of attraction of spherically symmetric stable laws on $\mathbf{R}^d$. **(82j:60035)**
Jajte, Ryszard V-decomposable measures on Hilbert spaces. **(82i:60012)**
Klass, Michael J. *See* **Hahn, Marjorie G., (82j:60035)**
Kolčins'kiĭ, V. Ĭ. On the law of the iterated logarithm in the form of Strassen for empirical measures. (Russian. English summary) **(82m:60033)**
LePage, Raoul (*with* Woodroofe, Michael; Zinn, Joel) Convergence to a stable distribution via order statistics. **(82k:60049)**
Nualart Rodón, David Weak convergence to the law of two-parameter continuous processes. **(82d:60060)**
Osipov, L. V. A remark on the series of H. Cramér. (Russian. English summary) **(82d:60050)**
Račkauskas, A. Asymptotic analysis of probability measures in Banach spaces. (Russian. Lithuanian and English summaries) **(82a:60014)**
Rychlik, E. (*with* Rychlik, Z.) The generalized Anscombe condition and its applications in random limit theorems. **(82i:60046)**
Rychlik, Z. *See* **Rychlik, E., (82i:60046)**
Sahanenko, A. I. *See* **Borovkov, A. A., (82c:60060)**
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Zinn, Joel *See* **LePage, Raoul; et al., (82k:60049)**

60B15 Probability measures on groups, Fourier transforms, factorization

Baldi, P. Caractérisation des groupes de Lie connexes récurrents. [Characterisation of recurrent connected Lie groups] **82k:60019**
Bougerol, Philippe Comportement asymptotique des puissances de convolution d'une probabilité sur un espace symétrique. (English summary) **82h:60020**
Crépel, Pierre (*with* Raugi, Albert) Théorème central limite sur les groupes nilpotents. (English summary) **82a:60016**
Derriennic, Yves Quelques applications du théorème ergodique sous-additif. (English summary) **82e:60013**
Fel'dman, G. M. (*with* Fryntov, A. E.) On the decomposition of a convolution of two Poisson distributions on locally compact abelian groups. (Russian. English summary) **82m:60012**
Flam, Sjur D. Convergence in law of a series of φ-mixing random variables implies convergence in probability. **82b:60005**
Fryntov, A. E. *See* **Fel'dman, G. M., 82m:60012**
Gerl, Peter A ratio limit theorem. (French summary) **82h:60021**
A local central limit theorem on some groups. **82h:60022**
Gol'dšeĭd, I. Ja. Asymptotic properties of the product of random matrices depending on a parameter. **82f:60027**
Guivarc'h, Yves Théorèmes quotients pour les marches aléatoires. (English summary) **82e:60014**
Sur la loi des grands nombres et le rayon spectral d'une marche aléatoire. (English summary) **82g:60016**
Quelques propriétés asymptotiques des produits de matrices aléatoires. **82b:60006**
Sur les exposants de Liapounoff des marches aléatoires à pas markovien. (English summary) **82i:60027**
Hennion, H. (*with* Roynette, B.) Un théorème de dichotomie pour une marche aléatoire sur un espace homogène. (English summary) **82f:60028**
Heyer, Herbert Moments of probability measures on a group. **82e:60015**
Janssen, Arnold Some remarks on P. Lévy's theorem for a net of discrete measures and the purity law on locally compact semigroups. **82b:60007**
Kaĭmanovič, V. A. The spectral measure of transition operator and harmonic functions connected with random walks on discrete groups. (Russian. English summary) **82g:60017**
Leonte, Aristide Kakutani's metric and continuity of convolution. **82g:60018**
Le Page, Émile Théorèmes des grands écarts sur les groupes nilpotents simplement connexes. **82g:60019**
Maksimov, V. M. Mathematical expectations for probability distributions on compact groups. **82g:60020**
McCrudden, Michael On embedding infinitely divisible distributions on simply-connected solvable Lie groups. **82m:60013**
Factors and roots of large measures on connected Lie groups. **82m:60014**
Nazarov, L. V. (*with* Smirnov, S. N.) Limit theorems of n-multiple convolutions of probability measures on compact semitopological semigroups. (Russian) **82f:60029**
Ponomarenko, O. I. Representations of moving averages for generalized homogeneous random fields on locally compact abelian groups. (Russian. English summary) **82k:60020**
Raugi, Albert *See* **Crépel, Pierre, 82a:60016**
Reich, Jakob I. Random ergodic sequences on LCA groups. **82e:60016**
Roynette, B. *See* **Hennion, H., 82f:60028**
Siebert, Eberhard Fourier analysis and limit theorems for convolution semigroups on a locally compact group. **82h:60023**
Diffuse and discrete measures semigroups of probability measures on topological groups. (French summary) **82m:60015**
Smirnov, S. N. *See* **Nazarov, L. V., 82f:60029**
Tortrat, Albert Lois stables dans un groupe. (English summary) **82m:60016**
Woess, Wolfgang Aperiodische Wahrscheinlichkeitsmaße auf topologischen Gruppen. (English summary) **82h:60008**

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Albeverio, Sergio (*with* Høegh-Krohn, Raphael) Some Markov processes and Markov fields in quantum theory, group theory hydrodynamics and C^*-algebras. **(82j:60127)**
Fischer, David R. Functions positive-definite on $\mathbf{R}^3$ and the Heisenberg group. **(82m:43009)**
Gallardo, Léonard (*with* Schott, René) Marches aléatoires sur les espaces homogènes de certains groupes de type rigide. (English summary) **(82e:60107a)**
(*with* Ries, Vincent) Marches aléatoires sur les espaces homogènes du groupe des déplacements de $\mathbf{R}^n$. (English summary) **(82e:60107b)**
Processus subordonnés au mouvement brownien sur les groupes de Lie nilpotents. (English summary) **(82c:60140)**
Girko, V. L. ★Теория случайных детерминантов. (Russian) [Theory of random determinants] **(82h:60002)**
Høegh-Krohn, Raphael *See* **Albeverio, Sergio, (82j:60127)**
Huard, Alain Une caractérisation des marches aléatoires récurrentes des espaces homogènes du groupe des déplacements de $\mathbf{R}^d$. (English summary) **(82e:60106)**
Hulanicki, Andrzej A class of convolution semigroups of measures on a Lie group. **(82g:43004)**
Janssen, Arnold Über die Meßbarkeit der Mengen der zulässigen und singulären Translationen von Maßen: der Lebesguesche Zerlegungssatz für Kerne. (English summary) **(82b:28023)**
Krener, Arthur J. (*with* Lobry, Claude) The complexity of stochastic differential equations. **(82j:60107)**
Laha, R. G. (*with* Rohatgi, V. K.) Fourier transform methods in the study of limit theorems in a Hilbert space. **(82h:60014)**
Lobry, Claude *See* **Krener, Arthur J., (82j:60107)**
Ries, Vincent *See* **Gallardo, Léonard, (82e:60107b)**
Rohatgi, V. K. *See* **Laha, R. G., (82h:60014)**
Sarapa, N. A note on the cosine equation for probability measures on compact semigroups. (Serbo-Croatian summary) **(82f:43001)**
Schott, René Une loi du logarithme itéré pour certaines intégrales stochastiques. (English summary) **(82c:60142)**
See also **Gallardo, Léonard, (82e:60107a)**
Silverstein, Jack W. Describing the behavior of eigenvectors of random matrices using sequences of measures on orthogonal groups. **(82e:15026)**
Šlosman, S. B. Limit theorems of probability theory for compact topological groups. (Russian. English summary) **(82f:60015)**
Truong-Van, Benoît Espace autoreproduisant d'une mesure spectrale et intégrales de Hellinger: applications aux processus. (English summary) **(82g:60051)**
Vol'kovič, V. Ė. Normed rings generated by generalized convolutions. (Russian) **(82e:60025)**

60B99 None of the above, but in this section

Rüschendorf, Ludger Ordering of distributions and rearrangement of functions. **82e:60017**
Ruzsa, I. Z. (*with* Székely, G. J.) An extension of expectation. **82a:60017**
Székely, G. J. *See* **Ruzsa, I. Z., 82a:60017**

secondary classifications:

Alsina, Claudi *See* **Trillas Ruiz, Enrique, (82h:51026)**
Bucan, G. P. The condition of boundedness of variation for stochastic categories. (Russian) **(82b:60081)**
The mixed product of nonhomogeneous stochastic semigroups. (Russian. English summary) **(82b:60094)**
Harris, Theodore E. Brownian motions on the homeomorphisms of the plane. **(82e:60130)**
Istrăţescu, I. I. On generalized complete probabilistic metric spaces. **(82b:08001)**
Matveĭčuk, M. S. The law of multiplication of random norms. (Russian) **(82g:46089)**
Sato, Yoshiyuki On infinite-dimensional unitary representations of certain discrete groups. **(82i:22010)**
Trillas Ruiz, Enrique (*with* Alsina, Claudi) ★Introducción a los espacios mètricos generalizados. (Spanish) [Introduction to generalized metric spaces] **(82h:51026)**
Zhao, Zhong Xin A note on the theory of abstract Wiener space. (Chinese) **(82f:28019)**

60C05 Combinatorial probability

Basler, H. Zur Definition von Zufallsstichproben aus endlichen Grundgesamtheiten. (English summary) **82c:60015**
(Chung, F. R. K.) *See* **Steele, J. Michael, 82i:60029**
Diaconis, Persi (*with* Shahshahani, Mehrdad) Generating a random permutation with random transpositions. **82h:60024**
Englund, Gunnar A remainder term estimate for the normal approximation in classical occupancy. **82j:60015**

Godehardt, Erhard An extension of the theorems of Erdős-Rényi-type to random multigraphs. **82k:60021**
Graham, Ronald L. (*with* Yao, Andrew Chi Chih; Yao, F. Frances) Some monotonicity properties of partial orders. **82k:60022**
Gupta, B. R. *See* **Sabharwal, Y. P., 82c:60019**
Handa, B. R. (*with* Mohanty, S. G.) On q-binomial coefficients and some statistical applications. **82d:60021**
Henery, R. J. Permutation probabilities as models for horse races. **82g:60021**
Holst, Lars On sequential occupancy problems. **82f:60030**
Random arcs on the circle. (Russian. English summary) **82i:60028**
Honsberger, Ross Some surprises in probability. (*See* **82e:00006**)
Johnson, Norman Lloyd A return to repetitions. **82c:60016**
Katona, D. (*with* Stečkin, B. S.) Combinatorial numbers, geometric constants and probabilistic inequalities. (Russian) **82c:60017**
Li, Shuo-Yen Robert A martingale approach to the study of occurrence of sequence patterns in repeated experiments. **82c:60018**
Melzak, Z. A. Multi-indexing and multiple clustering. **82e:60018**
Mohanty, S. G. *See* **Handa, B. R., 82d:60021**
Park, Chong Jin On the distribution of the number of unobserved elements when m samples of size n are drawn from a finite population. **82g:60022**
Pavlov, A. I. Limit distribution of the number of cycles and of the logarithm of order of a class of permutations. (Russian) **82h:60025**
Peters, James V. An equivalent form of Benford's law. **82k:60024**
Sabharwal, Y. P. (*with* Gupta, B. R.) Joint probability distributions concerning a sequence of symmetric Bernoulli trials. **82c:60019**
Shahshahani, Mehrdad *See* **Diaconis, Persi, 82h:60024**
Shepp, L. A. The FKG inequality and some monotonicity properties of partial orders. **82k:60023**
Stečkin, B. S. *See* **Katona, D., 82c:60017**
Steele, J. Michael Long unimodal subsequences: a problem of F. R. K. Chung. **82i:60029**
Strok, V. V. The distribution of random matrices of certain special types. (Russian) **82c:60020**
Yao, Andrew Chi Chih *See* **Graham, Ronald L.; et al., 82k:60022**
Yao, F. Frances *See* **Graham, Ronald L.; et al., 82k:60022**

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Ajtai, Miklós (*with* Komlós, János; Szemerédi, Endre) The longest path in a random graph. **(82d:05074)**
Ambrosimov, A. S. On the question of the behavior of the connection of a random $G_{n,1/2}$ graph. (Russian) **(82d:05076)**
Bellavista, Luciana V. On probabilistic multigraphs. (Italian. English and French summaries) **(82c:05073)**
van den Berg, J. Percolation theory on pairs of matching lattices. **(82j:82051)**
Berg, Sven On snowball sampling, random mappings and related problems. **(82b:60085)**
Berresford, Geoffrey C. The uniformity assumption in the birthday problem. **(82c:60001)**
Carrer, Antonio The arithmetic triangle of Tartaglia in an elementary solution of the "problème des parties". (Italian) **(82j:60001)**
Chen, Wen Chen Some local limit theorems in the symmetric Dirichlet-multinomial urn models. **(82k:60028)**
Damianou, Ch. *See* **Kounias, Stratis, (82a:60021)**
Elliott, Peter D. T. A. ★Probabilistic number theory. I. **(82h:10002a)**
Erdős, Paul Proof of a conjecture of Offord. **(82d:05009)**
(*with* Smith, B.) Finite abelian group cohesion. **(82m:20057)**
Frederickson, Greg N. Probabilistic analysis for simple one- and two-dimensional bin packing algorithms. **(82i:68019)**
Galambos, Janos (*with* Mucci, R.) Inequalities for linear combinations of binomial moments. **(82k:60036)**
Gani, J. (*with* Morton, R.) The degree of vertices on a randomly growing tree. **(82h:60156)**
Glick, I. I. A note on runs. **(82f:60155)**
Holst, Lars On multiple covering of a circle with random arcs. **(82k:60025)**
Ignatov, Z. Point processes generated by order statistics and their applications. **(82h:60101)**
Karoński, Michal (*with* Palka, Zbigniew) Addendum and erratum to the paper: "On the size of a maximal induced tree in a random graph" [Math. Slovaca **30** (1980), no. 2, 151–155; MR 81k:05093]. **(82e:05082)**
Katona, Gyula O. H. Sums of vectors and Turán's problem for 3-graphs. **(82j:05073)**
Kelly, Douglas G. (*with* Oxley, James G.) Asymptotic properties of random subsets of projective spaces. **(82k:05039)**
Kelmans, A. K. On graphs with randomly deleted edges. **(82j:05080)**
Kemp, Rainer The average height of r-tuply rooted planted plane trees. (German summary) **(82j:05051)**
Kleitman, Daniel J. (*with* Winston, Kenneth J.) Ensembles and largest sojourns of random walks. **(82h:60136)**
See also **Shearer, James B., (82j:05004)**
Komlós, János *See* **Ajtai, Miklós; et al., (82d:05074)**
Kounias, Stratis (*with* Damianou, Ch.) On an inequality of P. Erdős, J. Neveu, A. Rényi and S. Zubrzycki. **(82a:60021)**
Mihaĭlov, V. G. Convergence to the multidimensional normal law in an equiprobable scheme for the distribution of particles by complexes. (Russian) **(82c:60043)**
Morton, R. *See* **Gani, J., (82h:60156)**
Mucci, R. *See* **Galambos, Janos, (82k:60036)**
Olivié, Henk J. On random son-trees. **(82m:68112)**
Oxley, James G. *See* **Kelly, Douglas G., (82k:05039)**
Palka, Zbigniew *See* **Karoński, Michal, (82e:05082)**
Pittel', B. G. A process of runs and its convergence to the Brownian motion. **(82a:60044)**
Limiting behavior of a process of runs. **(82f:60058)**
Roth, Arthur J. (*with* Sobel, Milton) A probabilistically attained set of polynomials that generate Stirling numbers of the second kind. **(82m:05005)**
Rudolph, Daniel (*with* Steele, J. Michael) Sizes of order statistical events of stationary processes. **(82e:60061)**
Sagan, Bruce On selecting a random shifted Young tableau. **(82f:05008)**
Sen, Pranab Kumar Limit theorems for an extended coupon collector's problem and for successive subsampling with varying probabilities. **(82g:60041)**
Shearer, James B. (*with* Kleitman, Daniel J.) Probabilities of independent choices being ordered. **(82j:05004)**
Smith, B. *See* **Erdős, Paul, (82m:20057)**
Sobel, Milton *See* **Roth, Arthur J., (82m:05005)**
Steele, J. Michael *See* **Rudolph, Daniel, (82e:60061)**
Szemerédi, Endre *See* **Ajtai, Miklós; et al., (82d:05074)**
Takács, Lajos On a theorem of Gy. Hajós. **(82e:05019)**
Toman, Eduard Probability of connectedness of a random subgraph of an n-dimensional cube. (Russian) **(82b:05093)**
Travkin, S. I. Distribution of the number of maximal objects in partially ordered systems of comparison. (Russian) **(82a:90020)**
Walker, A. M. On the classical Bonferroni inequalities and the corresponding Galambos inequalities. **(82h:60035)**
Whittle, P. A direct derivation of the equilibrium distribution for a polymerisation process. (Russian summary) **(82h:82036)**
Winston, Kenneth J. *See* **Kleitman, Daniel J., (82h:60136)**
Zavada, A. P. An algorithm for generating random trees. (Russian) **(82j:68071)**
Zolotarev, V. M. General problems of the stability of mathematical models. (French summary) **(82f:60016)**

60D05 Geometric probability, stochastic geometry, random sets [See also 52A22, 53C65.]

Ambarcumjan, R. V. Random colorings of the plane. (Russian) (*See* **82k:60027**)
See also **Combinatory principles in stochastic geometry, 82k:60027**
Avaliani, G. V. *See* **Maistrenko, V. E.; et al., 82k:60027**
Baddeley, Adrian Dissecting the needle problem. (*See* **82k:60027**)
Combinatorial foundations of stochastic geometry. **82d:60022**
Begovatov, E. A. Random covering of a plane by convex figures. (Russian) **82h:60009**
Coleman, Rodney Intercept lengths of random probes through boxes. **82f:60031**
Cowan, Richard Properties of ergodic random mosaic processes. **82e:60019**
Ehlers, P. Frank (*with* Enns, Ernest G.) Random secants of a convex body generated by surface randomness. **82b:60010**
See also **Enns, Ernest G., 82f:60032**
Enns, Ernest G. (*with* Ehlers, P. Frank) Random paths originating within a convex region and terminating on its surface. **82f:60032**
See also **Ehlers, P. Frank, 82b:60010**
Fava, N. A. (*with* Santaló, Luis Antonio) Random processes of manifolds in $\mathbf{R}^n$. **82c:60021**
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Hawkes, John On the asymptotic behaviour of sample spacings. **82h:60026**
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(*with* Stoyan, Dietrich) A general approach to Buffon's needle and Wicksell's corpuscle problem. (*See* **82k:60027**)
(*with* Nagel, Werner) Stationäre räumliche Faserprozesse und ihre Schnittzahlrosen. (English and Russian summaries) **82j:60016**
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Oganjan, V. K. Combinatorial principles in stochastic geometry of random processes of segments. (Russian) (*See* **82k:60027**)
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60Exx Distribution theory [See also 62Exx, 62Hxx.]

Hengartner, Walter (*with* Theodorescu, Radu) ★Функции концентрации. (Russian) [Concentration functions] **82c:60024**

(Kruglov, V. M.) *See* **Hengartner, Walter; et al., 82c:60024**

(Sudakov, V. N.) *See* **Problems of the theory of probability distributions, 82c:60025**

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Problems of the theory of probability distributions ★Проблемы теории вероятностных распределений. VI. (Russian) [Problems of the theory of probability distributions. VI] **82c:60025**

60E05 Distributions: general theory

Aldous, David J. Representations for partially exchangeable arrays of random variables. **82m:60022**

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Janc, Mirko Approximation of the probability distribution density function by a discretization method regarded as a problem of parametric optimization. (Serbo-Croatian. English summary) **82g:60028**

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Szczepankiewicz, Eugeniusz *See* **Duczmal, Marian; et al., 82i:60031**

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Titov, A. N. Analytic properties of a class of mixtures of infinitely divisible laws of distribution. (Russian) **82j:60021**

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Papp, F. J. Characterization of the normal probability density function in all dimensions. **(82m:62034)**
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Ruiz-Rivas Hernando, C. A new bivariate system and its properties. (Spanish. English summary) **(82h:62081)**
Samaniego, Francisco J. (*with* Gong, Gail) Two characterizations for Pascal signals in additive noise. **(82k:62039)**
Stansberg, Carl Trygve On the first-order probability density function of integrated laser speckle. **(82h:78018)**
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60E07 Infinitely divisible distributions; stable distributions

Anorina, L. A. A class of operator-stable distributions. (Russian) **82c:60028**
Bai, Zhi Dong (*with* Su, Chun) On the Lebesgue decomposition of the multidimensional infinitely divisible distributions. (Chinese. English summary) **82i:60032**
Christoph, Gerd Asymptotic expansions in the case of a stable limit law. I. (Russian. Lithuanian and German summaries) **82j:60023**
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Hall, Peter A comedy of errors: the canonical form for a stable characteristic function. **82h:60032**
Jesiak, Bernd On the unique determination of Lévy's spectral functions and parameters of infinitely divisible distributions. (Russian summary) **82j:60024**
Jurek, Zbigniew J. On stability of probability measures in Euclidean spaces. **82f:60045**
Domains of normal attraction of operator-stable measures on Euclidean spaces. (Russian summary) **82i:60034**
Kent, John T. Convolution mixtures of infinitely divisible distributions. **82f:60046**
Lai, C. D. A note on Gumbel's bivariate distribution. **82c:60029**
Mitra, Shashanka S. Distribution of symmetric stable laws of index 2^{-n}. **82k:60032**
O'Connor, Thomas A. Some classes of limit laws containing the stable distributions. **82e:60026**
Ostrovs'kiĭ, Ĭ. V. Infinitely divisible distribution functions that coincide on a half axis. (Russian. English summary) **82f:60047**
Rajba, Teresa On decomposability semigroups for certain probability measures. (Russian summary) **82i:60035**
Rosenblatt, M. Polynomials in Gaussian variables and infinite divisibility? **82h:60033**
de Silva, Basil M. The quotient of certain stable random variables. **82f:60048**
Su, Chun *See* **Bai, Zhi Dong, 82i:60032**
Zaicev, A. Ju. Some properties of n-fold convolutions of distributions. (Russian. English summary) **82c:60030**
Zolotarev, V. M. The problem of stability of a class of problems of characterization of distributions and a lemma of Ju. R. Gabovič. (Russian) **82f:60049**

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Forst, Gunnar Subordinates of the Poisson semigroup. **(82k:60148)**
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Hahn, Marjorie G. (*with* Klass, Michael J.) The generalized domain of attraction of spherically symmetric stable laws on $\mathbf{R}^d$. **(82j:60035)**
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Some classes of probability distributions. (Russian. Lithuanian and English summaries) **(82e:60005)**
Kubilius, K. Asymptotic behavior of distributions of martingales with a continuous parameter. (Russian. Lithuanian and English summaries) **(82e:60078)**
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60E10 Characteristic functions; other transforms

Artikis, Theodore On a transformation of analytic characteristic functions. **82m:60028**
Chu Duc *See* **Rossberg, H.-J., 82d:60027**
Csörgő, Sándor Multivariate characteristic functions and tail behaviour. **82j:60025**
Multivariate empirical characteristic functions. **82j:60026**
Dobrjak, D. S. A law of random variable distribution. (Russian) **82h:60011**
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Rossberg, H.-J. (*with* Chu Duc) Uniqueness theorems for the components of a convolution given on a half line. (German and Russian summaries) **82d:60027**
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Titov, A. N. On the determination of a convolution of identical distribution functions from its values on a half line. (Russian. English summary) **82k:60034**

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Rajba, Teresa On decomposability semigroups for certain probability measures. (Russian summary) **(82i:60035)**

60E15 Inequalities (Čebyšev, Kolmogorov, etc.)

Batty, C. J. K. (*with* Bollmann, H. W.) Generalised Holley-Preston inequalities on measure spaces and their products. **82a:60019**
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Bysočanskiĭ, D. F. (*with* Petunin, Ju. Ĭ.) Proof of the 3σ rule for unimodal distributions. (Russian. English summary) **82m:60029**
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Gabbasov, F. G. (*with* Dubrovin, V. T.) The probability of a normalized sum of weakly dependent vectors to be in the exterior of a convex set. (Russian) **82d:60030**
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Prékopa, András Logarithmic concave measures and related topics. **82a:60022**
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Šarahmetov, Š. Probability inequalities for sums of random variables satisfying the condition of uniform strong mixing. (Russian) **82g:60030**
Sengupta, S. S. *See* **Siu, W. W. C.; et al., 82d:60032**
Shepp, L. A. (*with* Olkin, Ingram) Entropy of the sum of independent Bernoulli random variables and of the multinomial distribution. **82g:60031**
Siu, W. W. C. (*with* Sengupta, S. S.; Lind, N. C.) A linear programming formulation of the problem of moments. (German and Russian summaries) **82d:60032**
Skibinsky, Morris The minimum probability on an interval when the mean and variance are known. **82e:60028**
Tchen, André H. Inequalities for distributions with given marginals. **82f:60052**
Tong, Yung Liang ★Probability inequalities in multivariate distributions. **82k:60038**
Tydeman, John (*with* Mitchell, Robert) A note on the Kounias and Marin method of best linear Bonferroni bounds. **82c:60031**
Walker, A. M. On the classical Bonferroni inequalities and the corresponding Galambos inequalities. **82h:60035**
Zaev, N. M. Estimation of covariance of random variables satisfying the Cramér condition and mixing in the sense of Ibragimov. (Russian) **82k:60039**

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de Acosta, Alejandro Strong exponential integrability of sums of independent B-valued random vectors. **(82i:60016)**
Ahmad, Ibrahim A. A Hájek-Rényi inequality for U-statistics. **(82e:60046)**
Awad, Adnan M. Remark on the characteristic function of the F-distribution. **(82m:62025)**
Borovskih, Ju. V. A nonuniform estimate for the rate of convergence of L-statistics. (Russian) **(82i:60037)**
Csörgő, Sándor Multivariate characteristic functions and tail behaviour. **(82j:60025)**
Fishburn, Peter C. Continua of stochastic dominance relations for unbounded probability distributions. **(82f:90019)**
Ghorai, J. K. Empirical Bayes estimation of a distribution function with a gamma process prior. **(82i:62061)**
Graham, Ronald L. (*with* Yao, Andrew Chi Chih; Yao, F. Frances) Some monotonicity properties of partial orders. **(82k:60022)**
Has'minskiĭ, R. Z. *See* **Ibragimov, I. A., (82g:62006)**
Ibragimov, I. A. (*with* Has'minskiĭ, R. Z.) ★Statistical estimation. **(82g:62006)**
Klass, Michael J. Precision bounds for the relative error in the approximation of $E|S_n|$ and extensions. **(82h:60097)**
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(Kotz, Samuel) *See* **Ibragimov, I. A.; et al., (82g:62006)**
Kubacki, Krzysztof S. (*with* Szynal, Dominik) Bernstein's inequality for a class of asymptotic martingales. (Russian summary) **(82g:60060)**
Landers, Dieter (*with* Rogge, Lothar) The natural median. **(82m:62107)**
Mogyoródi, J. Duality of the maximal inequality for nonnegative submartingales and of the convexity inequality of Burkholder. **(82h:60083)**
Rogge, Lothar *See* **Landers, Dieter, (82m:62107)**
Rüschendorf, Ludger Ordering of distributions and rearrangement of functions. **(82e:60017)**
Shepp, L. A. The FKG inequality and some monotonicity properties of partial orders. **(82k:60023)**
Szynal, Dominik *See* **Kubacki, Krzysztof S., (82g:60060)**
Thomas, Lawrence E. Stochastic coupling and thermodynamic inequalities. **(82a:60151)**
Yao, Andrew Chi Chih *See* **Graham, Ronald L.; et al., (82k:60022)**
Yao, F. Frances *See* **Graham, Ronald L.; et al., (82k:60022)**

60E99 None of the above, but in this section

Arak, T. V. Approximation of n-fold convolutions of distributions, having a nonnegative characteristic function, with accompanying laws. (Russian. English summary) **82a:60023**
Coletti, Giulianella (*with* Regoli, Giuliana) On the distribution function of a finitely additive probability measure. (Italian. English summary) **82j:60029**
Kovač, A. On Bergström's relation. (Russian. Lithuanian and English summaries) **82k:60040**
Kudina, L. S. Decompositions of multidimensional probability distributions. (Russian) **82e:60029**
Regoli, Giuliana *See* **Coletti, Giulianella, 82j:60029**
Stein, William E. (*with* Talati, Kirit) Convex fuzzy random variables. **82k:60041**
Szczotka, Władysław A characterization of the distribution of an exchangeable random vector. (Russian summary) **82j:60030**
Talati, Kirit *See* **Stein, William E., 82k:60041**

secondary classifications:

Alsina, Claudi Triangle functions and composition of probability distribution functions. **(82i:39008)**
Askey, Richard A. A q-extension of Cauchy's form of the beta integral. **(82m:33001)**
Cacoullos, T. (*with* Papageorgiou, H.) On some bivariate probability models applicable to traffic accidents and fatalities. (French summary) **(82j:62080)**
Chu Duc *See* **Rossberg, H.-J., (82d:60027)**
Kamien, Morton I. (*with* Schwartz, Nancy L.) A generalized hazard rate. **(82i:62140)**
Keilson, Julian On the unimodality of passage time densities in birth-death processes. **(82f:60185)**
Mirošnikov, A. L. (*with* Rogozin, B. A.) Inequalities for concentration functions. (Russian. English summary) **(82h:60054)**
Norton, R. M. Moment properties and the arc sine law. **(82d:60026)**
Papageorgiou, H. *See* **Cacoullos, T., (82j:62080)**
Rogozin, B. A. *See* **Mirošnikov, A. L., (82h:60054)**
Rossberg, H.-J. (*with* Chu Duc) Uniqueness theorems for the components of a convolution given on a half line. (German and Russian summaries) **(82d:60027)**
Schwartz, Nancy L. *See* **Kamien, Morton I., (82i:62140)**
Strok, V. V. The distribution of random matrices of certain special types. (Russian) **(82c:60020)**

60Fxx Limit theorems [See also 28Dxx, 60B12.]

secondary classifications:

Girko, V. L. ★Теория случайных детерминантов. (Russian) [Theory of random determinants] **(82h:60002)**
Hengartner, Walter (*with* Theodorescu, Radu) ★Функции концентрации. (Russian) [Concentration functions] **(82c:60024)**
(Kruglov, V. M.) *See* **Hengartner, Walter; et al., (82c:60024)**
Theodorescu, Radu *See* **Hengartner, Walter, (82c:60024)**

60F05 Central limit and other weak theorems

Abdalimov, B. *See* **Malevič, T. L., 82c:60040**
Ahmad, Ibrahim A. On the law of large numbers for dependent variables. **82i:60036**
On the Berry-Esseen theorem for random U-statistics. **82c:60032**
Mixing normal approximations of vectors of sums and maximum sums. **82m:60030**
Conditioned rates of convergence in the CLT for sums and maximum sums. **82e:60030**
Amosova, N. N. Local limit theorems for the probabilities of moderate deviations. (Russian) **82f:60053**
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Arak, T. V. A new estimate for the rate of convergence in Kolmogorov's uniform limit theorem. (Russian) **82c:60034**
Balacheff, Serge (*with* Dupont, Ghislain) Normalité asymptotique des processus empiriques tronqués et des processus de rang (cas multidimensionnel mélangeant). **82f:60054**
Banys, J. Estimation of the rate of convergence in a local theorem for sums with a random number of terms. (Russian. Lithuanian and English summaries) **82h:60036**
Basu, A. K. On the rate of approximation in the central limit theorem for dependent random variables and random vectors. **82e:60031**
Belov, E. G. (*with* Pečinkin, A. V.) A limit theorem for sums of a random number of random terms. (Russian) **82b:60012**
Bergström, Harald General limit theorems for products with applications to convolution products of measures. **82m:60031**
Berman, Simeon M. A compound Poisson limit for stationary sums, and sojourns of Gaussian processes. **82b:60013**
Bikelienė, Vanda Sampling from a finite population. Poisson approximation. (Russian. Lithuanian and English summaries) **82g:60032**
Bikelis, Algimantas (*with* Žemaitis, Antanas) On the central limit theorem. (Russian. Lithuanian and English summaries) **82e:60032**
Bolthausen, E. The Berry-Esseen theorem for functionals of discrete Markov chains. **82a:60024**
Borovskih, Ju. V. The problem of approximating the distributions of U-statistics and von Mises functionals. I. (Russian) **82e:60033a**
The problem of approximating the distributions of U-statistics and von Mises functionals. II. (Russian) **82e:60033b**
On the asymptotic theory of U-statistics. (Russian. English summary) **82h:60037**
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Bradley, Richard C., Jr. A remark on the central limit question for dependent random variables. **82j:60031**
Central limit theorems under weak dependence. **82i:60038**
Breuer, Peter A strong approximation for some nonstationary complex Gaussian processes. **82i:60039**
Callaert, Herman (*with* Veraverbeke, Noël) The order of the normal approximation for a studentized U-statistic. **82g:60033**
Chen, Xi Ru On limiting properties of U-statistics and von Mises statistics. **82a:60025**
Chernick, Michael R. A limit theorem for the maximum term in a particular EARMA $(1, 1)$ sequence. **82e:60034a**
A limit theorem for the maximum of autoregressive processes with uniform marginal distributions. **82d:60034**
Correction: "A limit theorem for the maximum term in a particular EARMA $(1, 1)$ sequence". **82e:60034b**
Christoph, Gerd Über notwendige und hinreichende Bedingungen für Konvergenzgeschwindigkeitsaussagen im Falle einer stabilen Grenzverteilung. (English summary) **82h:60014**
Čistjakov, A. V. Convergence of finite-dimensional distributions of a Markov process that is controllable by a rapidly ergodic process. (Russian) **82j:60032**
Cohn, Harry On the convergence of stochastically monotone sequences of random variables and some applications. **82h:60038**
Crépel, Pierre Lois des grands écarts pour les marches aléatoires sur **R**. **82c:60035**
Dasgupta, Ratan *See* **Ghosh, Malay, 82h:60039**
Daugavet, A. I. Convergence rates of some numerical characteristics of distributions in the central limit theorem. (Russian. English summary) **82k:60042**
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Asymptotic normality of non-φ-mixing Markov chains. (Italian) **82j:60033b**
Delporte, Jean Inégalité de Komlós-Major-Tusnády relative aux sommes de variables aléatoires indépendantes identiquement distribuées. **82g:60034**

Dupont, Ghislain *See* **Balacheff, Serge.** **82f:60054**

Džamirzaev, A. A. The mixing property in the sense of A. Rényi for a sequence of random variables. (Russian) **82d:60035**

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Gafurov, M. U. (*with* Saliev, Š. T.) Asymptotic expansion of the distribution of sums of a random number of independent random variables with regularly varying tails. (Russian) **82e:60035**

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Gorodeckiĭ, V. V. The invariance principle for functions of stationarily connected Gaussian variables. (Russian. English summary) **82h:60015**

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Gyires, Béla Weak convergence of linear rank statistics. **82e:60037**

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Hahn, Marjorie G. (*with* Klass, Michael J.) The generalized domain of attraction of spherically symmetric stable laws on $\mathbf{R}^l$. **82j:60035**

Hall, Peter Characterizing the rate of convergence in the central limit theorem. **82k:60045a**

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Characterizing the rate of convergence in the central limit theorem. II. **82k:60045b**

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Hannan, E. J. The central limit theorem for time series regression. **82e:60038**

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Hüsler, Jürg The law of the iterated logarithm for the last exit time of independent random sequences. **82j:60037**

Ikeda, Sadao *See* **Matsunawa, Tadashi.** **82c:60041**

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Ivanov, O. V. Convergence of distributions of functionals of measurable random fields. (Russian) **82b:60018**

Jadrenko, M. Ĭ. *See* **Leonenko, M. M.,** **82a:60030**

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Jurek, Zbigniew J. Central limit theorem in Euclidean space. (Russian summary) **82j:60038**

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Uniform estimate in the limit theorem for "Studentized" U-statistics. (Russian) **82i:60041**

Keller, Gerhard Un théorème de la limite centrale pour une classe de transformations monotones par morceaux. (English summary) **82i:60042**

Klass, Michael J. *See* **Hahn, Marjorie G.,** **82j:60035**

Klopotowski, Andrzej Mixtures of infinitely divisible distributions as limit laws for sums of dependent random variables. **82a:60029**

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Kučkarov, Ja. H. A multidimensional limit theorem for probability measures with values in spaces of measurable functions. (Russian) **82d:60038**

Kushner, Harold J. Stochastic approximation with discontinuous dynamics and state dependent noise: w.p. 1 and weak convergence. **82k:60048**

Lapinskas, R. Limit theorems for weakly dependent random variables. (Russian. Lithuanian and English summaries) **82i:60043**

Leonenko, M. M. (*with* Jadrenko, M. Ĭ.) Limit theorems for homogeneous and isotropic random fields. (Russian. English summary) **82a:60030**

LePage, Raoul (*with* Woodroofe, Michael; Zinn, Joel) Convergence to a stable distribution via order statistics. **82k:60049**

Lin, Zheng Yan (*with* Lu, Chuan Rong; Lu, Chuan Lai) On the central limit theorem for random sums of stationary sequences. (Chinese) **82g:60038**

Limit theorem for a class of sequences of weakly dependent random variables. (Chinese. English summary) **82h:60042**

Lipcer, R. Š. (*with* Širjaev, A. N.) A functional central limit theorem for semimartingales. (Russian. English summary) **82d:60039**

(*with* Širjaev, A. N.) Necessary and sufficient conditions in the functional central limit theorem for semimartingales. (Russian. English summary) **82e:60039**

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Lootgieter, Jean-Claude Sur une conjecture de L. E. Dubins. (English summary) **82c:60039**

Lu, Chuan Lai *See* **Lin, Zheng Yan; et al.,** **82g:60038**

Lu, Chuan Rong *See* **Lin, Zheng Yan; et al.,** **82g:60038**

Mačys, Juozas Bernoulli trials with variable probabilities. (Russian. Lithuanian and English summaries) **82a:60031**

Maejima, Makoto The remainder term in the local limit theorem for independent random variables. **82b:60020**

A note on the nonuniform rate of convergence to normality. **82i:60044**

Malevič, T. L. (*with* Abdalimov, B.) The rate of convergence of the distribution of U-statistics to the normal law. (Russian) **82c:60040**

Refinement of the central limit theorem for sums of m-dependent variables with increasing m. (Russian) **82d:60040**

Maller, R. A. Some properties of stochastic compactness. **82h:60043**

On the law of large numbers for stationary sequences. **82b:60021**

A theorem on products of random variables, with application to regression. **82m:60032**

Marušin, M. M. Conditions for the applicability of the normal limit law to the sum of a random number of independent variables. (Russian) **82d:60041**

Mascolo, Elvira *See* **De Dominicis, Rodolfo,** **82j:60034**

Matsunawa, Tadashi (*with* Ikeda, Sadao) Uniform asymptotic distribution of extremes. **82c:60041**

Michel, Reinhard A remark on nonuniform estimates in the central limit theorem for sums of independent random vectors. **82h:60044**

On the constant in the nonuniform version of the Berry-Esseen theorem. **82c:60042**

Micu, N. Sur un théorème de comparabilité. **82i:60045**

On the random subsequences of some series of real numbers. (Romanian. French summary) **82a:60032**

Mihailov, V. G. Convergence to the multidimensional normal law in an equiprobable scheme for the distribution of particles by complexes. (Russian) **82c:60043**

Móri, Tamás F. On the rate of convergence in the martingale central limit theorem. **82e:60040**

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Muhin, A. B. *See* **Vo An' Zung; et al.,** **82d:60046**

Nair, K. Aiyappan Asymptotic distribution and moments of normal extremes. **82d:60042**

Nenciu, Elena Sur la répartition asymptotique d'un processus aléatoire à temps aléatoire. (Romanian summary) **82a:60033**

Niemi, Seppo The central limit theorem for Markov chains with the simultaneous total variation convergence of the chain. **82h:60046**

Paditz, Ludwig Bemerkungen zu einer Fehlerabschätzung im zentralen Grenzwertsatz. **82c:60044**

Parring, A.-M. The limit distribution of sampling k-moments of a random vector. **82k:60050**

Pečinkin, A. V. *See* **Belov, E. G.,** **82h:60012**

Pittel', B. G. Limiting behavior of a process of runs. **82f:60058**

Puri, Madan L. (*with* Tran, Lanh T.) Empirical distribution functions and functions of order statistics for mixing random variables. **82a:60034**

See also **Eicker, Friedhelm,** **82i:60040**

Regazzini, Eugenio Errata corrige: "Some observations on a theoretical indicator of association between components of a random vector with special emphasis on the convergence in probability of random numbers" [Rend. Sem. Mat. Univ. Politec. Torino **36** (1977/78), 279–291 (1979); MR 80i:60026a]. (Italian) **82g:60039**

Resnick, S. I. *See* **de Haan, L.,** **82f:60055**

Riauba, B. On the rate of convergence in the central limit theorem for m-dependent random fields. (Russian. Lithuanian and English summaries) **82d:60043**

Robinson, John An asymptotic expansion for permutation tests with several samples. **82e:60042**

Rozovskiĭ, L. V. On the rate of convergence to the normal law in an integral metric. (Russian) **82d:60044**

Rüschendorf, Ludger Weak convergence of the weighted multiparameter empirical process. **82d:60045**

Rychlik, E. (*with* Rychlik, Z.) The generalized Anscombe condition and its applications in random limit theorems. **82i:60046**

Rychlik, Z. *See* **Rychlik, E.,** **82i:60046**

Saliev, Š. T. *See* **Gafurov, M. U.,** **82e:60035**

Sazonov, V. V. The method of composition and estimates for the rate of convergence in the central limit theorem. (Russian) **82g:60040**

Schneider, E. On the speed of convergence in the random central limit theorem for φ-mixing processes. **82k:60051**

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Weak convergence of an iterated renewal process. **82a:60035**

Senatov, V. V. Several estimates of the rate of convergence in the multidimensional central limit theorem. (Russian) **82h:60047**

Some uniform estimates of the convergence rate in the multidimensional central limit theorem. (Russian. English summary) **82h:60022**

Sevast'janov, B. A. A scheme of dependent assignments. (Russian) **82k:60052**

Šiganov, I. S. A multidimensional analogue of Gram-Charlier and Edgeworth-Cramèr expansions. (Russian) **82e:60043**

Sil'vestrov, D. S. *See* **Kaplan, E. L.** **82h:60041**

Širjaev, A. N. *See* **Kabanov, Ju. M.; et al., 82a:60027**; **Lipcer, R. Š., 82d:60039** *and* **82e:60039**

Smirnova, V. V. *See* **Girko, V. L., 82e:60036**

Szynal, Dominik A remark on the strong law of large numbers for random index sums. **82h:60048**

Takács, Lajos The arc sine law of Paul Lévy. **82h:60049**

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To An' Zung *See* **Vo An' Zung; et al., 82d:60046**

Tomkins, R. J. Limit theorems without moment hypotheses for sums of independent random variables. **82h:60023**

Tran, Lanh T. *See* **Puri, Madan L., 82a:60034**

Tucker, Howard G. Joint limit laws of sample moments of a symmetric distribution. **82c:60045**

Umarov, S. E. Asymptotic comparison of local probabilities of multidimensional hypergeometric and polynomial distributions. (Russian) **82k:60053**

Veraverbeke, Noël *See* **Callaert, Herman, 82g:60033**

Vo An' Zung (*with* Muhin, A. B.; To An' Zung) Certain local limit theorems for independent integer-valued random variables. (Russian) **82d:60046**

Watson, Ray An application of a martingale central limit theorem to the standard epidemic model. **82e:60044**

Weber, N. C. Rates of convergence for *U*-statistics with varying kernels. **82c:60046**

Wellner, Jon A. A Glivenko-Cantelli theorem for empirical measures of independent but nonidentically distributed random variables. **82k:60054**

Withers, C. S. Central limit theorems for dependent variables. I. **82k:60055**

Woodroofe, Michael *See* **LePage, Raoul; et al., 82k:60049**

Yoshihara, Ken-ichi Some estimates of the concentration function of sums of absolutely regular sequences. **82c:60047a**

Correction to: "Some estimates of the concentration function of sums of absolutely regular sequences". **82c:60047b**

Zabell, Sandy L. Rates of convergence for conditional expectations. **82d:60047**

Zaĭcev, A. Ju. On the approximation of distributions of sums of independent, not identically distributed random variables with accompanying laws. (Russian) **82a:60036**

The estimation of proximity of distributions of sequential sums of independent identically distributed random vectors. (Russian. English summary) **82b:60024**

Žemaitis, Antanas *See* **Bikelis, Algimantas, 82e:60032**

Zinn, Joel *See* **LePage, Raoul; et al., 82k:60049**

Žurbenko, I. G. On a limit theorem for statistics of spectral density with a time shift. (Russian) **82h:60025**

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Ahmad, Ibrahim A. On concentration functions of random sums of independent random variables. **(82e:60084)**

The exact order of normal approximation in bivariate renewal theory. **(82b:60111)**

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Ambarcumjan, R. V. (*with* Nahapet'jan, B. S.) The Palm distribution and limit theorems for random point processes. (Russian. Armenian summary) **(82c:60093)**

Aničkin, S. A. *See* **Kalašnikov, V. V., (82e:60003)**

Anisimov, V. V. (*with* Sitjuk, V. N.) Asymptotic behavior of inhomogeneous Poisson flow with conductor function, dependent on a small parameter, controlled by a Markov chain. **(82d:60128)**

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(*with* Sitjuk, V. N.) On the convergence of a nonhomogeneous Markov chain to a process with independent values controlled by a nonhomogeneous Markov process. (Russian. English summary) **(82h:60138)**

Azlarov, T. A. (*with* Faĭziev, A. A.) Statistical properties of functions from estimates of determining characteristics of finite Markov chains. (Russian) **(82d:60119)**

Banys, Rimas On superpositions of random measures and point processes. **(82f:60122)**

Bentkus, R. (*with* Rudzkis, R.) Exponential estimates for the distribution of random variables. (Russian. Lithuanian and English summaries) **(82d:60029)**

(*with* Kazbaras, A. R.) Optimal statistical estimates of a probability density. (Russian) **(82m:62087)**

Berman, Simeon M. Isotropic Gaussian processes on the Hilbert sphere. **(82k:60082)**

Bingham, N. H. Tauberian theorems and the central limit theorem. **(82f:40010)**

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Brown, Timothy Carlisle Compensators and Cox convergence. **(82i:60094)**

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Volodin, N. A. On certain moment characteristics that are used in estimating probabilities of large deviations in the strong law of large numbers. (Russian) **82d:60057**
Wei, C. Z. *See* **Chow, Y. S.; et al., 82k:60062**
Wright, F. T. A strong law for variables indexed by a partially ordered set with applications to isotone regression. **82c:60058**
The empirical discrepancy over lower layers and a related law of large numbers. **82f:60065**
Yu, Kai Fun *See* **Chow, Y. S.; et al., 82k:60062**
van Zuijlen, M. C. A. *See* **Ruymgaart, F. H., 82a:60040**

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Ahmad, Ibrahim A. A remark on the SLLN for random partial sums. **(82c:60048)**
Astbury, Kenneth A. The order convergence of martingales indexed by directed sets. **(82e:60074)**
Berbee, Henry Recurrence and transience for random walks with stationary increments. **(82m:60081)**
Blake, Louis H. Tempered processes and a Riesz decomposition for some martingales in the limit. **(82e:60082)**
Breuer, Peter A strong approximation for some nonstationary complex Gaussian processes. **(82i:60039)**
Chen, Robert On almost sure convergence in a finitely additive setting. **(82a:60048)**
Chow, Y. S. (*with* Hsiung, Chao Agnes; Yu, Kai Fun) Limit theorems for a positively drifting process and its related first passage times. **(82a:60127)**
Cox, J. Theodore (*with* Durrett, Richard) Some limit theorems for percolation processes with necessary and sufficient conditions. **(82k:60208)**
(*with* Grimmett, Geoffrey) Central limit theorems for percolation models. **(82k:60209)**
Cuzick, Jack (*with* Lai, Tze Leung) On random Fourier series. **(82f:60083)**
Dão Quang Tuyên On the asymptotic behaviour of sequences of random variables and of their previsible compensators. **(82k:60108)**
Davydov, Ju. A. Strong convergence of distributions of functionals of stochastic processes. I. (Russian. English summary) **(82j:60010a)**
Strong convergence of distributions of functionals of stochastic processes. II. (Russian. French summary) **(82j:60010b)**
Deo, Chandrakant M. A limit theorem for maxima of nonstationary Gaussian sequences. **(82j:60060)**
(*with* Wong, H. Ship-Fah) On Berry-Esseen approximation and a functional LIL for a class of dependent random fields. **(82e:60054)**
De Vylder, Fl. (*with* Haezendonck, J.) Explosions in random point processes. **(82h:60055)**
Durrett, Richard On the growth of one-dimensional contact processes. **(82b:60126)**
See also **Cox, J. Theodore, (82k:60208)**
Edgar, Gerald A. (*with* Sucheston, Louis) Démonstrations de lois des grands nombres par les sous-martingales descendantes. (English summary) [Demonstrations of the laws of large numbers by descending submartingales] **(82i:60087)**
Elton, John A law of large numbers for identically distributed martingale differences. **(82f:60096)**
Gaposkin, V. F. Estimates of means for almost all realizations of stationary processes. (Russian) **(82d:60064)**
Grimmett, Geoffrey *See* **Cox, J. Theodore, (82k:60209)**
Guivarc'h, Yves Sur la loi des grands nombres et le rayon spectral d'une marche aléatoire. (English summary) **(82g:60016)**
Hachem, Bachar Un théorème ergodique sur-additif dans L^p $(1<p<\infty)$. (English summary) **(82e:47011)**
Haezendonck, J. *See* **De Vylder, Fl., (82h:60055)**
Honda, Ikuji Abstract Bennett's formula for a class of nonstationary linear stochastic processes. **(82g:60036)**
Hsiung, Chao Agnes *See* **Chow, Y. S.; et al., (82a:60127)**

Hüsler, Jürg A note on the functional law of iterated logarithm for maxima of Gaussian sequences. **(82i:60062)**
Iosifescu, Marius Recent advances in mixing sequences of random variables. **(82h:60017)**
Kolčins'kiĭ, V. Ī. Some theorems on uniform convergence of a sequence of measures. (Russian) **(82h:28011)**
Lai, Tze Leung *See* **Cuzick, Jack**, **(82f:60083)**
Lenglart, Erik Martingales et séries stochastiques en temps discret. (English summary) **(82e:60075)**
Le Page, Émile Théorèmes des grands écarts sur les groupes nilpotents simplement connexes. **(82g:60019)**
Mamirov, U. È. Martingale analogue of the law of the iterated logarithm. (Russian) **(82k:60103)**
Mueller, Carl A unification of Strassen's law and Lévy's modulus of continuity. **(82f:60180)**
Papanicolaou, George C. Remarks on limit theorems for partial differential equations with random coefficients. **(82e:60099)**
Perkins, Edwin On the iterated logarithm law for local time. **(82c:60138)**
Puri, Madan L. (*with* Tran, Lanh T.) Empirical distribution functions and functions of order statistics for mixing random variables. **(82a:60034)**
Sil'vestrov, D. S. Remarks on the strong law of large numbers for processes of accumulation. (Russian. English summary) **(82a:60129)**
Singh, Kesar Representations of quantile processes with nonuniform bounds. **(82g:62074)**
Steinebach, Josef Das Gesetz der grossen Zahlen von Erdős-Rényi im Wartemodell $G/G/1$. **(82m:60121)**
Sucheston, Louis *See* **Edgar, Gerald A.**, **(82i:60087)**
Tran, Lanh T. *See* **Puri, Madan L.**, **(82a:60034)**
Tucker, Howard G. (*with* Wright, Larry A.) An integral strong law of large numbers for processes with independent increments. **(82e:60116)**
Watts, Vernon The almost sure representation of intermediate order statistics. **(82g:62075)**
Wong, H. Ship-Fah *See* **Deo, Chandrakant M.**, **(82e:60054)**
Woyczyński, Wojbor A. On Marcinkiewicz-Zygmund laws of large numbers in Banach spaces and related rates of convergence. **(82i:60026)**
Wright, Larry A. *See* **Tucker, Howard G.**, **(82e:60116)**
Yu, Kai Fun *See* **Chow, Y. S.; et al.**, **(82a:60127)**

60F17 Functional limit theorems; invariance theorems

Bauer, Herbert Some invariance principles for stochastic processes and their inverse and supremum processes. **82c:60059**
Borovkov, A. A. (*with* Sahanenko, A. I.) Estimates for the convergence rate in the invariance principle for Banach spaces. (Russian. English summary) **82c:60060**
Brown, Timothy Carlisle (*with* Silverman, B. W.) Rates of Poisson convergence for U-statistics. **82j:60050**
Bulinskiĭ, A. V. A new variant of the functional law of the iterated logarithm. (Russian. English summary) **82f:60066**
Chang, I Shou (*with* Hsiung, Chao Agnes) Functional limit theorems for processes with positive drift and first passage time processes. **82d:60058**
Chaurasia, A. R. (*with* Ranjan, Alok) Weak convergence of empirical processes. **82e:60052**
Davydov, Ju. A. A local invariance principle. I. (Russian. French summary) **82e:60053**
Deo, Chandrakant M. Functional limit theorems for delayed averages of Gaussian sequences. **82f:60067**
(*with* Wong, H. Ship-Fah) On Berry-Esseen approximation and a functional LIL for a class of dependent random fields. **82e:60054**
Dudley, Richard M. *See* **Durst, Mark**, **82j:60051**
Durst, Mark (*with* Dudley, Richard M.) Empirical processes, Vapnik-Chervonenkis classes and Poisson processes. **82j:60051**
Girko, V. L. A new method for proving some limit theorems for products of independent random matrices. (Russian. English summary) **82d:60059**
Harel, Michel Convergence en loi pour la topologie de Skorohod du processus empirique multidimensionnel normalisé tronqué et semi-corrigé (étude au voisinage de la frontière inférieure de $[0,1]^{l+k}$). **82h:60057**
Helland, Inge S. Minimal conditions for weak convergence to a diffusion process on the line. **82f:60068**
Heyde, C. C. Invariance principles in statistics. (French summary) **82k:60067**
Holst, Lars Some conditional limit theorems in exponential families. **82j:60052**
Hsiung, Chao Agnes *See* **Chang, I Shou**, **82d:60058**
Jadrenko, M. Ī. *See* **Leonenko, M. M.**, **82a:60043**
Kanagawa, Shūya Rates of convergence of the invariance principle for weakly dependent random variables. **82h:60058**
Kolčins'kiĭ, V. Ī. On the law of the iterated logarithm in the form of Strassen for empirical measures. (Russian. English summary) **82m:60033**
Leonenko, M. M. (*with* Jadrenko, M. Ī.) The invariance principle for some classes of random fields. (Russian) **82a:60043**
Major, Péter An improvement of Strassen's invariance principle. **82f:60069**
Marcus, Michael B. Weak convergence of the empirical characteristic function. **82g:60048**
McNeil, Donald R. (*with* Schach, Siegfried) Central limit analogues for Markov population processes. **82f:60070**
Morozan, T. On the convergence of some random processes related to stochastic approximation. **82e:60055**
Neaderhouser, Carla C. An almost sure invariance principle for partial sums associated with a random field. **82h:60059**
Newman, C. M. (*with* Wright, A. L.) An invariance principle for certain dependent sequences. **82m:60034**
Nualart Rodón, David Weak convergence to the law of two-parameter continuous processes. **82d:60060**
Pakshirajan, R. P. (*with* Vasudeva, R.) A functional law of the iterated logarithm for a class of subordinators. **82k:60068**
Peligrad, Magda Invariance principles for dependent variables. **82k:60070**
An invariance principle for dependent random variables. **82k:60069**
Pittel', B. G. A process of runs and its convergence to the Brownian motion. **82a:60044**
Pollard, David Limit theorems for empirical processes. **82j:60053**
Ranjan, Alok *See* **Chaurasia, A. R.**, **82e:60052**
Sahanenko, A. I. *See* **Borovkov, A. A.**, **82c:60060**
Schach, Siegfried *See* **McNeil, Donald R.**, **82f:60070**
Sen, Pranab Kumar Invariance principles for linear rank statistics revisited. **82h:60060**
Silverman, B. W. *See* **Brown, Timothy Carlisle**, **82j:60050**
Surgailis, D. Convergence of sums of nonlinear functions of moving averages to self-similar processes. (Russian) **82k:60071**
Takahashi, S. The functional central limit theorem for lacunary trigonometric series. **82d:60061**
Takahata, Hiroshi Some limit theorems for maximum partial sums of random variables. **82h:60061**
Vasudeva, R. *See* **Pakshirajan, R. P.**, **82k:60068**
Wong, H. Ship-Fah *See* **Deo, Chandrakant M.**, **82e:60054**
Wright, A. L. *See* **Newman, C. M.**, **82m:60034**
Wright, F. T. Sums of random variables indexed by a partially ordered set and the estimation of integral regression functions. **82m:60035**
Yokoyama, Ryozo A note on weak convergence of empirical processes for φ-mixing random variables. **82j:60054**
Yoshihara, Ken-ichi A weak convergence theorem for functionals of sums of strong mixing sequences. **82k:60072**

secondary classifications:

Bhattacharya, P. K. (*with* Frierson, Dargan, Jr.) A nonparametric control chart for detecting small disorders. **82h:62174**
Borwanker, J. D. An invariance principle for stationary processes. **82f:60076**
Bunimovič, L. A. (*with* Sinaĭ, Ja. G.) Statistical properties of Lorentz gas with periodic configuration of scatterers. **82m:82007**
Byczkowski, T. (*with* Inglot, T.) The invariance principle for vector-valued random variables with applications to functional random limit theorems. **82j:60009**
Csenki, Attila *See* **Eberlein, Ernst**, **82d:60018**
Deshayes, Jean (*with* Picard, Dominique) Convergence de processus à double indice: application aux tests de rupture dans un modèle. (English summary) **82c:62053**
Eberlein, Ernst An invariance principle for lattices of dependent random variables. **82d:60017**
(*with* Csenki, Attila) A note on strongly mixing lattices of random variables. **82d:60018**
Ežov, Ī. Ī. (*with* Zjukov, M. E.) Distributions of functionals of processes with independent increments and jumps that are bounded below. (Russian) **82j:60138**
Földes, Antónia (*with* Rejtő, Lídia) A LIL type result for the product limit estimator. **82i:62060**
Frierson, Dargan, Jr. *See* **Bhattacharya, P. K.**, **82h:62174**
Girko, V. L. Infinitely divisible laws for sums of certain dependent random variables. (Ukrainian. English and Russian summaries) **82k:60044**
Gouet, Raul La méthode des martingales dans l'étude des extrêmes. (English summary) [Martingale method in the study of extremes] **82k:60113**
Hu, Di He Limit distributions of functionals of Markov chains. (Chinese) **82h:60140**
Huang, Hai *See* **Kushner, Harold J.**, **82i:60118**
Inglot, T. *See* **Byczkowski, T.**, **82j:60009**
Kaplan, E. I. (*with* Sil'vestrov, D. S.) Theorems of the type of the invariance principle for semi-Markov processes with an arbitrary state space. (Russian) **82d:60178**
Kuelbs, J. (*with* Philipp, Walter) Almost sure invariance principles for partial sums of mixing B-valued random variables. **82i:60020**
Kurtz, Thomas G. ★Approximation of population processes. **82j:60160**
Kushner, Harold J. (*with* Huang, Hai) On the weak convergence of a sequence of general stochastic difference equations to a diffusion. **82i:60118**
Leonenko, M. M. (*with* Mišura, Ju. S.) On the invariance principle for multiparameter martingales. (Russian. English summary) **82j:60083**
Mišura, Ju. S. Convergence of certain functionals of integral type in the uniform topology. (Russian) **82d:60097**
See also **Leonenko, M. M.**, **82j:60083**
Morkvėnas, R. On weak compactness of the sets of multiparameter stochastic processes. **82j:60013**
Philipp, Walter *See* **Kuelbs, J.**, **82i:60020**
Picard, Dominique *See* **Deshayes, Jean**, **82c:62053**
Puri, Madan L. (*with* Tran, Lanh T.) Invariance principles for rank statistics for testing independence. **82i:62075**
Rejtő, Lídia *See* **Földes, Antónia**, **82i:62060**
Révész, Pál How small are the increments of a Wiener sheet? **82i:60133**
Ritter, Grant A. Growth of random walks conditioned to stay positive. **82j:60125**
Sen, Pranab Kumar The Cox regression model, invariance principles for some induced quantile processes and some repeated significance tests. **82e:62075**
Sil'vestrov, D. S. *See* **Kaplan, E. I.**, **82d:60178**
Sinaĭ, Ja. G. *See* **Bunimovič, L. A.**, **82m:82007**
Sudakov, V. N. On the limit distribution "in the large" of linear functionals over a random process of the second order. (Russian. English summary) **82e:60012**
Tran, Lanh T. *See* **Puri, Madan L.**, **82i:62075**
Vallander, S. S. One system of automata with local interactions. **82m:68100**
Zeephongsekul, Panlop Laplace functional approach to point processes occurring in a traffic model. **82k:60115**
Zjukov, M. E. *See* **Ežov, Ī. Ī.**, **82j:60138**

60F20 Zero-one laws

Csáki, Endre Iterated logarithm laws for the square integral of a Wiener process. **82h:60062**

secondary classifications:

Blackwell, David There are no Borel SPLIFs. **(82d:60010)**
Hawkes, John On the asymptotic behaviour of sample spacings. **(82h:60026)**

60F25 L^p-limit theorems

Landers, Dieter (*with* Rogge, Lothar) Isotonic approximation in L_s. **82j:60055**
Rogge, Lothar *See* **Landers, Dieter, 82j:60055**

secondary classifications:

Dasgupta, Ratan *See* **Ghosh, Malay, (82h:60039)**
Ghosh, Malay (*with* Dasgupta, Ratan) On some nonuniform rates of convergence to normality. **(82h:60039)**

60F99 None of the above, but in this section

Anis, A. A. (*with* Gharib, M.) On the variance of the maximum of partial sums of n-exchangeable random variables with applications. **82e:60056**
Banah, D. *See* **Sil'vestrov, D. S., 82f:60073**
Bruss, F. Thomas A counterpart of the Borel-Cantelli lemma. **82f:60071**
Gharib, M. *See* **Anis, A. A., 82e:60056**
Girko, V. L. Uniqueness of the solution of the canonical spectral equation. (Russian) **82a:60045**
A conjecture of E. Wigner. (Russian. English summary) **82a:60046**
Kanevskiĭ, V. A. (*with* Lev, G. Š.) Point sequences distributed in an infinite-dimensional space. (Russian) **82d:60062**
Lev, G. Š. *See* **Kanevskiĭ, V. A., 82d:60062**
Micu, N. Comparison models for sequences of random variables that diverge a.e. to $+\infty$. (Romanian. French summary) **82h:60063**
Precupanu, Anca-Maria Sur les suites asymptotiquement presque périodiques en probabilité. **82i:60052**
Reiss, R.-D. Approximation of product measures with an application to order statistics. **82f:60072**
Sil'vestrov, D. S. (*with* Banah, D.) Uniform mean ergodic theorems for accumulation processes. (Russian. English summary) **82f:60073**

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Aaronson, Jon The asymptotic distributional behaviour of transformations preserving infinite measures. **(82m:28030)**
Ahmad, Ibrahim A. Conditioned concentration functions for sums of independent random variables. **(82c:60092)**
Aldous, David J. On $\hat{d}$-convergence of Markov chains. **(82h:60129)**
Aliev, S. A. A limit theorem for branching processes with continuous time. (Russian. Azerbaijani and English summaries) **(82k:60164)**
Awad, Adnan M. (*with* Salah, Munthir S.) Partial sum approximation for the distribution function of random sums. **(82h:62029)**
Cenuşă, Gheorghe (*with* Săcuiu, Ion) Sequences of random variables almost periodical in probability. (French and Russian summaries) **(82h:60057)**
Direev, Ju. V. An ergodic theorem for additive functionals. (Russian. English summary) **(82e:60119)**
Fichtner, Karl-Heinz (*with* Kerstan, Johannes) Asymptotische Invarianz bei Halbgruppen stochastischer Kerne. I. **(82d:60011a)**
See also **Kerstan, Johannes, (82d:60011b)**
Gurevič, B. M. Stationary random sequences of maximal entropy. **(82d:28019)**
Hachem, Bachar Sur le théorème ergodique sur-stationnaire et sous-additif dans L^p. (English summary) **(82f:60079)**
Hahn, L. Approximation by operators of probabilistic type. **(82m:41020)**
Kalašnikov, V. V. Investigation of the continuity of random sequences by the construction of "proximity points". (Russian) **(82g:60005)**
Kaniovskiĭ, Ju. M. (*with* Knopov, P. S.; Nekrylova, Z. V.) ★Предельные теоремы для процессов стохастического программирования. (Russian) [Limit theorems for processes of stochastic programming] **(82f:90072)**
Kerstan, Johannes (*with* Fichtner, Karl-Heinz) Asymptotische Invarianz bei Halbgruppen stochastischer Kerne. II. **(82d:60011b)**
See also **Fichtner, Karl-Heinz, (82d:60011a)**
Knopov, P. S. *See* **Kaniovskiĭ, Ju. M.; et al., (82f:90072)**
Konovalov, A. G. A local limit theorem on the limit transfer to a diffusion process. (Russian. English summary) **(82k:60143)**
Marušin, M. M. An example of the moment problem for positive integral random variables. (Ukrainian. English and Russian summaries) **(82k:60029)**
Mišura, Ju. S. Limit theorems for stochastic Schärf-Stieltjes integrals. (Russian) **(82h:60110)**
Nakonečniĭ, A. N. Estimation of the rate of convergence of linear combinations of distribution functions. (Russian) **(82d:60179)**
Nekrylova, Z. V. *See* **Kaniovskiĭ, Ju. M.; et al., (82f:90072)**
Ôkura, Hiroyuki Some limit theorems of Donsker-Varadhan type for Markov process expectations. **(82j:60132)**
Ostrowski, Alexander On the distribution function of certain sequences (mod 1). **(82d:10073)**
Platen, Eckhard Weak convergence of approximations of Itô integral equations. (German and Russian summaries) **(82f:60145)**
Radžabov, N. Limit equivalence of the large and small canonical Gibbs states for quantum lattice models (the small density case). (Russian) **(82k:82015)**
Richter, Gerhard Bemerkungen zu linearen Gleichungssystemen mit zufälligen Koeffizienten. **(82c:60118)**
Royer, Gilles Croissance exponentielle de produits markoviens de matrices aléatoires. (English summary) **(82d:60117)**
Săcuiu, Ion *See* **Cenuşă, Gheorghe, (82b:60057)**
Salah, Munthir S. *See* **Awad, Adnan M., (82h:62029)**
Sitjuk, V. N. On the limit behavior of semi-Markov systems with nonhomogeneous probabilities of failures. (Russian. English summary) **(82k:60182)**
Tomkó, József A limit theorem for Markov renewal processes. **(82j:60168)**
Toscani, Giuseppe An approach to white noise via wide-sense stationary processes with piecewise constant sample functions. (Italian summary) **(82f:60080)**
Ullah, Nazakat On the expansion of the single eigenvalue probability density function. **(82d:81164)**
Veksler, A. S. Statistical ergodic theorem and statistical convergence of martingales in symmetric spaces. (Russian) **(82k:60008)**
Weber, N. C. Rates of convergence for U-statistics with varying kernels. **(82c:60046)**
Ždanok, A. I. Invariant finitely additive measures and limit behavior of Markov processes with discrete time. (Russian. English summary) **(82g:60092)**

60Gxx Stochastic processes

Koroljuk, V. S. *See* **Mitropol'skiĭ, Ju. A.; et al., 82g:60049**
Kovalenko, Ī. M. *See* **Mitropol'skiĭ, Ju. A.; et al., 82g:60049**
Kudžma, R. (*with* Mackevičius, V.) Theory of stochastic processes. (Russian. Lithuanian and English summaries) **82d:60063**
Mackevičius, V. *See* **Kudžma, R., 82d:60063**
Mihalevič, V. S. *See* **Mitropol'skiĭ, Ju. A.; et al., 82g:60049**
Mitropol'skiĭ, Ju. A. (*with* Koroljuk, V. S.; Mihalevič, V. S.; Kovalenko, Ī. M.) On A. V. Skorohod's works on the theory of random processes. (Russian) **82g:60049**
(Skorohod, A. V.) *See* **Mitropol'skiĭ, Ju. A.; et al., 82g:60049**
Bibliography:
Skorohod, A. V. *See* **Mitropol'skiĭ, Ju. A.; et al., 82g:60049**

secondary classifications:

Albeverio, Sergio (*with* Høegh-Krohn, Raphael) Martingale convergence and the exponential interaction in $\mathbf{R}^n$. **(82i:81072)**
Davis, M. H. A. Martingale methods in stochastic control. **(82b:93051)**
Dellacherie, Claude (*with* Meyer, Paul-André) ★Probabilités et potentiel. Chapitres V à VIII. (French) [Probability and potential. Chapters V–VIII] **(82b:60001)**
Høegh-Krohn, Raphael *See* **Albeverio, Sergio, (82i:81072)**
Jadrenko, M. Ī. ★Спектральная теория случайных полей. (Russian) [Spectral theory of random fields] **(82e:60001)**
Kallianpur, Gopinath ★Stochastic filtering theory. **(82f:60089)**
(Körezlioğlu, Hayri) *See* **Two-index random processes, (82i:60004)**
(Mazziotto, Gérald) *See* **Two-index random processes, (82i:60004)**
Meyer, Paul-André *See* **Dellacherie, Claude, (82b:60001)**
(Szpirglas, Jacques) *See* **Two-index random processes, (82i:60004)**
Colloquium:
Two-Index Random Processes ★Processus aléatoires à deux indices. (French) [Two-index random processes] **(82i:60004)**
Paris ★Processus aléatoires à deux indices. (French) [Two-index random processes] **(82i:60004)**
Processus aléatoires à deux indices ★Processus aléatoires à deux indices. (French) [Two-index random processes] **(82i:60004)**
Two-index random processes ★Processus aléatoires à deux indices. (French) [Two-index random processes] **(82i:60004)**

60G05 Foundations of stochastic processes

Barankin, Edward W. Enlarged mathematical representations for stochastic phenomena. **82a:60047**
Chen, Robert On almost sure convergence in a finitely additive setting. **82a:60048**
Dalec'kiĭ, Ju. L. (*with* Pipija, G. M.) Calculation of distributions of integral polynomials of random processes by means of Feynman integrals. (Russian. Georgian and English summaries) **82m:60036**
Dragan, Ja. P. ★Структура и представления моделей стохастических сигналов. (Russian) [Structure and representations of models of stochastic signals] **82g:60050**
(Herer, Wojciech) *See* **Lipcer, R. Š.; et al., 82c:60061**
Lipcer, R. Š. (*with* Širjaev, A. N.) ★Statystyka procesów stochastycznych. (Polish) [Statistics of random processes] **82c:60061**
Nikodem, Kazimierz On convex stochastic processes. **82i:60053**
Pipija, G. M. *See* **Dalec'kiĭ, Ju. L., 82m:60036**
Płuciński, Edmund Piecewise monotonic transformations of the discrete stochastic processes. **82j:60056**
Seynou, Aboubakary Sur la compatibilité temporelle d'une tribu et d'une filtration discrète. **82h:60064**
Širjaev, A. N. *See* **Lipcer, R. Š., 82c:60061**
Tjur, Tue ★Probability based on Radon measures. **82b:60032**

secondary classifications:

Hall, Peter Characterizing the rate of convergence in the central limit theorem. **(82k:60045a)**
Characterizing the rate of convergence in the central limit theorem. II. **(82k:60045b)**
Niemi, Hannu (*with* Weron, Aleksander) Dilation theorems for positive definite operator kernels having majorants. **(82m:47005)**
Peligrad, Magda Invariance principles for dependent variables. **(82k:60070)**
Ramakrishnan, S. Finitely additive Markov chains. **(82i:60121)**
Schneider, E. On the speed of convergence in the random central limit theorem for φ-mixing processes. **(82k:60051)**
Weron, Aleksander *See* **Niemi, Hannu, (82m:47005)**

60G07 General theory of processes

Allain, Marie-France Tribus prévisibles et espaces de processus à trajectoires continues indexés par un espace localement compact et métrisable. **82f:60074**

Bakry, D. Théorèmes de section et de projection pour les processus à deux indices. **82e:60057**

Čerkašin, E. V. The structure of fundamental G-algebras, generated by a process with a finite number of jumps. (Russian) **82m:60037**

Dellacherie, Claude Mesurabilité des débuts et théorème de section: le lot à la portée de toutes les bourses. **82j:60057**

Döhler, Raimund Zur bedingten Unabhängigkeit zufälliger Ereignisse. (Russian summary) **82e:60058**

Doléans-Dade, Catherine (*with* Meyer, Paul-André) Un petit théorème de projection pour processus à deux indices. **82e:60059**

Feyel, Denis Espaces fonctionnels de processus. **82f:60075**

Kaneko, Kunihiko *See* **Suzuki, Masuo; et al., 82k:60073**

Lenglart, Erik Tribus de Meyer et théorie des processus. **82i:60054**

Mazziotto, Gérald (*with* Szpirglas, Jacques) Un exemple de processus à deux indices sans l'hypothèse F4. **82i:60055**

(*with* Merzbach, Ely; Szpirglas, Jacques) Discontinuités des processus croissants et martingales à variation intégrable. [Discontinuities of increasing processes and martingales with integrable variation] **82m:60038**

(*with* Szpirglas, Jacques) Sur les discontinuités d'un processus CAD-LAG à deux indices. [On the discontinuities of a two-index CAD-LAG process] **82m:60039**

Merzbach, Ely *See* **Mazziotto, Gérald; et al., 82m:60038**

Meyer, Paul-André *See* **Doléans-Dade, Catherine, 82e:60059**

Sasagawa, Fumiyoshi *See* **Suzuki, Masuo; et al., 82k:60073**

Skorohod, A. V. Measurability of stochastic processes. (Russian. English summary) **82c:60062**

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Szpirglas, Jacques *See* **Mazziotto, Gérald, 82i:60055**; **82m:60038** *and* **82m:60039**

Vostrikova, L. Ju. Discovery of "discord" in multidimensional random processes. (Russian) **82i:60056**

Yor, Marc Sur certains commutateurs d'une filtration. **82h:60065**

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Al-Hussaini, Ata (*with* Elliott, Robert J.) Stochastic calculus for a two-parameter jump process. **(82k:60121)**

Bockett, Roger W. Stochastic realization theory and Planck's law for black body radiation. **(82f:82024)**

Chacon, R. V. (*with* Le Jan, Yves; Walsh, John B.) Spatial trajectories. **(82k:60146)**

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Le Jan, Yves *See* **Chacon, R. V.; et al., (82k:60146)**

Nikodem, Kazimierz On quadratic stochastic processes. **(82h:39008)**

Rao, M. M. Local functionals on $C_\infty(G)$ and probability. **(82b:46027)**

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60G10 Stationary processes

Abrahams, Julia (*with* Thomas, John B.) Some comments on conditionally Markov and reciprocal Gaussian processes. **82k:60074**

Alekseev, V. G. On the problem of detecting the trend of a stationary random process. (Russian. Lithuanian and English summaries) **82k:60075**

Bentkus, R. (*with* Šeputis, A.) Large deviations for the number of crossings of a constant level by a ρ-mixing stationary sequence. (Russian. Lithuanian and English summaries) **82e:60060**

(*with* Tarasevičius, P.) Some estimates for the cumulants of m-dependent and ρ-mixing stationary processes. (Russian. Lithuanian and English summaries) **82i:60057**

Borwanker, J. D. An invariance principle for stationary processes. **82f:60076**

Bradley, Richard C., Jr. On the φ-mixing condition for stationary random sequences. **82a:60049**

A sufficient condition for linear growth of variances in a stationary random sequence. **82i:60058**

von Chossy, R. (*with* Oppel, U. G.) Ein Invarianzeigenschaft für Startverteilungen einer Klasse stochastischer Prozesse. (English summary) **82j:60058**

Dossou-Gbete, Simplice Analyse spectrale des fonctions aléatoires généralisées stationnaires du second ordre: théorème d'isomorphisme de Kolmogorov. **82c:60063**

Dragan, Ja. P. Harmonic expansion of realizations and spectral analysis of random processes. (Russian) **82f:60077**

Fadeeva, E. P. Optimal linear interpolator for a class of stationary processes. (Russian) **82h:60033**

Explicit extrapolation of stationary processes with spectral density generalizing a rational spectral density. (Russian) **82h:60034**

Gaposkin, V. F. Estimates of means for almost all realizations of stationary processes. (Russian) **82d:60064**

Gylys, R. Wold decompositions of linearly regular stationary processes. (Russian. Lithuanian and English summaries) **82f:60078**

Hachem, Bachar Sur le théorème ergodique sur-stationnaire et sous-additif dans L^p. (English summary) **82f:60079**

Honda, Ikuji Spectral representation of periodically correlated stochastic processes and approximate Fourier series. **82h:60066**

Kakihara, Yûichirô Stationary processes and information channels. **82k:60076**

Kawata, Tatsuo On general linear stochastic processes. **82k:60077**

Fourier coefficients of a general linear process. **82k:60078**

Kropáč, O. A unified model for nonstationary and/or non-Gaussian random processes. **82k:60079**

Miyazawa, Masakiyo Note on Palm measures in the intensity conservation law and inversion formula in PMP and their applications. (German and Russian summaries) **82g:60052**

Nahapet'jan, B. S. On a weak dependence criterion. (Russian. English summary) **82h:60067**

Niemi, Hannu On the construction of Wold-Cramér decomposition for bivariate stationary processes. **82d:60065**

Oppel, U. G. *See* **von Chossy, R., 82j:60058**

Plikusas, A. Estimates for the cumulants and large deviations for certain nonlinear transformations of a stationary Gaussian process. (Russian. Lithuanian and English summaries) **82b:60035**

Rao, M. M. Representation of weakly harmonizable processes. **82i:60059**

Rudolph, Daniel (*with* Steele, J. Michael) Sizes of order statistical events of stationary processes. **82e:60061**

Saworotnow, Parfeny P. Stationary processes on a semigroup. **82a:60050**

Scarpellini, Bruno Conditional expectations of stationary processes. **82k:60080**

Schmidt, Franz On moving average representations of Banach-space valued stationary processes over LCA groups. **82i:60060**

Šeputis, A. *See* **Bentkus, R., 82e:60060**

Solev, V. N. Approximation of a reproducing kernel. (Russian. English summary) **82g:60053**

Steele, J. Michael *See* **Rudolph, Daniel, 82e:60061**

Stensholt, Eivind (*with* Tjøstheim, Dag) Factorizing multivariate time series operators. **82j:60059**

Sznitman, Alain-Sol Perturbations ponctuelles d'évolutions: construction d'espaces stationnaires. (English summary) **82d:60066**

Takahata, Hiroshi L_∞-bound for asymptotic normality of weakly dependent summands using Stein's result. **82k:60081**

Tarasevičius, P. *See* **Bentkus, R., 82i:60057**

Thomas, John B. *See* **Abrahams, Julia, 82k:60074**

Tjøstheim, Dag *See* **Stensholt, Eivind, 82j:60059**

Toscani, Giuseppe An approach to white noise via wide-sense stationary processes with piecewise constant sample functions. (Italian summary) **82f:60080**

Truong-Van, Benoît Espace autoreproduisant d'une mesure spectrale et intégrales de Hellinger: applications aux processus. (English summary) **82g:60051**

Weba, Michael Interpolation schwach stationärer Zeitreihen. (English and Russian summaries) **82d:60067**

Weber, Michel Sur les D-modules asymptotiques des processus strictement stationnaires ergodiques. **82a:60051**

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Arimoto, Akio Asymptotic behavior of difference between a finite predictor and an infinite predictor for a weakly stationary stochastic process. **(82f:60085)**

Babu, Gutti Jogesh (*with* Singh, Kesar) Probabilities of moderate deviations for some stationary strong-mixing processes. **(82k:60056)**

Berman, Mark The covariance of two type II counters. **(82m:60125)**

Borisov, I. S. (*with* Borovkov, A. A.) Asymptotic behavior of the number of free channels for systems with failures. (Russian. English summary) **(82i:60150)**

Borovkov, A. A. *See* **Borisov, I. S., (82i:60150)**

Bradley, Richard C., Jr. A remark on the central limit question for dependent random variables. **(82j:60031)**

Central limit theorems under weak dependence. **(82i:60038)**

Chernick, Michael R. A limit theorem for the maximum term in a particular EARMA (1, 1) sequence. **(82e:60034a)**

Correction: "A limit theorem for the maximum term in a particular EARMA (1, 1) sequence". **(82e:60034b)**

On strong mixing and Leadbetter's D condition. **(82j:60120)**

Cressie, Noel (*with* Davis, Robert W.) The supremum distribution of another Gaussian process. **(82d:60071)**

Davis, Robert W. *See* **Cressie, Noel, (82d:60071)**

Dossou-Gbete, Simplice (*with* Ettinger, P.; de Falguerolles, A.) Identification and preliminary estimation of ARMA type processes: some comments. **(82i:62126)**

Ettinger, P. *See* **Dossou-Gbete, Simplice; et al., (82i:62126)**

de Falguerolles, A. *See* **Dossou-Gbete, Simplice; et al., (82i:62126)**

Fernique, Xavier Sur les lois de certaines intégrales associées à des mouvements browniens. **(82i:60131)**

Fichtner, Karl-Heinz (*with* Freudenberg, W.) Weak ergodic theorems for nonlinear averaging procedures. **(82a:60148)**

Freudenberg, W. *See* **Fichtner, Karl-Heinz, (82a:60148)**

Geodakov, N. A. Local Markovian property of Gaussian stationary processes. (Russian. English summary) **(82b:60037)**

Hannan, E. J. Time series. **(82b:62122)**

Hemon, Denis *See* **Richardson, Sylvia, (82k:60086)**

Holst, Lars On multiple covering of a circle with random arcs. **(82k:60025)**

Le Breton, Alain (*with* Musiela, Marek) Moments et filtrage linéaire d'un système stochastique bilinéaire à temps continu. (English summary) **(82c:60104)**

Lin, Zheng Yan (*with* Lu, Chuan Rong; Lu, Chuán Lai) On the central limit theorem for random sums of stationary sequences. (Chinese) **(82g:60038)**

Lu, Chuan Lai *See* **Lin, Zheng Yan; et al., (82g:60038)**

Lu, Chuan Rong *See* **Lin, Zheng Yan; et al., (82g:60038)**

Malevič, T. L. Probability of finding a Gaussian stationary process above the zero level. (Russian) **(82d:60072)**

Maller, R. A. On the law of large numbers for stationary sequences. **(82b:60021)**

Masani, P. An outline of the theory of stationary measures over $\mathbf{R}^q$. **(82c:28024)**

McKenzie, Ed Extending the correlation structure of exponential autoregressive-moving-average processes. **(82j:62066)**

Meidan, R. On the connection between ordinary and generalized stochastic processes. **(82d:60069)**

Musiela, Marek *See* **Le Breton, Alain, (82c:60104)**

Nair, V. N. Plots and tests for goodness of fit with randomly censored data. **(82h:62172)**
Orey, Steven Stationary solutions for linear systems with additive noise. **(82m:60068)**
Ozawa, Masanao Hilbert $B(H)$-modules and stationary processes. **(82h:46086)**
Ponomarenko, O. Ī. Representations of moving averages for generalized homogeneous random fields on locally compact abelian groups. (Russian. English summary) **(82k:60020)**
Radavičius, M. On the problem of generalizing a theorem of P. Lévy. (Russian. Lithuanian and English summaries) **(82k:60050)**
Radčenko, O. M. The relation between the mean length of the level line of a homogeneous random field and the mean number of its intersections by an arbitrary line. (Ukrainian. English and Russian summaries) **(82m:60061)**
Radecke, W. Some mean value relations on stationary random mosaics in the space. **(82e:60020)**
Richardson, Sylvia (*with* Hemon, Denis) On the variance of the sample correlation between two independent lattice processes. **(82k:60086)**
Rosenblatt, M. Limit theorems for Fourier transforms of functionals of Gaussian sequences. **(82i:60066)**
Shimano, Takashi On helices and multiple Wiener integrals of a Gaussian automorphism. **(82k:60071)**
Singh, Kesar *See* **Babu, Gutti Jogesh**, **(82k:60056)**
Taksar, M. I. Subprocesses of stationary Markov processes. **(82d:60136)**
Tihomirov, A. N. Convergence rate in the central limit theorem for weakly dependent random variables. (Russian. English summary) **(82h:60050)**
Tjøstheim, Dag Measuring deviations from stationarity. **(82i:60061)**
Weber, Michel Sur un théorème de Maruyama. **(82f:60082)**
Zaev, N. M. *See* **Žurbenko, I. G.**, **(82d:60070)**
Žurbenko, I. G. On a limit theorem for statistics of spectral density with a time shift. (Russian) **(82b:60025)**
(*with* Zuev, N. M.) Mixing of random processes. (Russian) **(82d:60070)**

60G12 General second-order processes

Bulatović, Jelena On transformations of one class of stochastic processes. **82d:60068**
(*with* Janjić, Slobodanka) Some properties of fully submitted processes. **82h:60068**
Cartier, Pierre Une étude des covariances mesurables. (English summary) [A study of measurable covariances] **82m:60040**
Janjić, Slobodanka *See* **Bulatović, Jelena**, **82h:60068**
Meidan, R. On the connection between ordinary and generalized stochastic processes. **82d:60069**
Niemi, Hannu On the construction of the Wold decomposition for nonstationary stochastic processes. **82c:60064**
Tjøstheim, Dag Measuring deviations from stationarity. **82i:60061**
Truong-Van, Benoît Une généralisation du théorème de Kolmogorov-Aronszajn. Processus V-bornés q-dimensionnels: domaine spectral—dilatations stationnaires. **82h:60069**
Zuev, N. M. *See* **Žurbenko, I. G.**, **82d:60070**
Žurbenko, I. G. (*with* Zuev, N. M.) Mixing of random processes. (Russian) **82d:60070**

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Gylys, R. Wold decompositions of linearly regular stationary processes. (Russian. Lithuanian and English summaries) **(82f:60078)**
Ławniczak, Zofia On least square estimation of second order stochastic processes with discrete time. (Polish summary) **(82j:60068)**

60G15 Gaussian processes

Berg, Lothar Über Gaußsche Markov-Prozesse als Wachstumsmodelle. (English summary) [Gaussian Markov processes as growth models] **82m:60041**
Berman, Simeon M. High level sojourns for strongly dependent Gaussian processes. **82b:60036**
Correction to: "Sojourns and extremes of Gaussian processes" [Ann. Probab. **2** (1974), 999–1026; MR **51** #9178]. **82c:60065**
Isotropic Gaussian processes on the Hilbert sphere. **82k:60082**
Bromley, C. (*with* Kallianpur, Gopinath) Gaussian random fields. **82e:60062**
Cressie, Noel (*with* Davis, Robert W.) The supremum distribution of another Gaussian process. **82d:60071**
Cuzick, Jack The Hausdorff dimension of the level sets of a Gaussian vector field. **82e:60063**
Boundary crossing probabilities for stationary Gaussian processes and Brownian motion. **82f:60081**
Davis, Robert W. *See* **Cressie, Noel**, **82d:60071**
Deo, Chandrakant M. A limit theorem for maxima of nonstationary Gaussian sequences. **82j:60060**
Eagleson, G. K. An extended dichotomy theorem for sequences of pairs of Gaussian measures. **82k:60083**
Geodakov, N. A. Local Markovian property of Gaussian stationary processes. (Russian. English summary) **82h:60037**
Ginovjan, M. S. Asymptotic behavior of the Toeplitz determinant. (Russian. English summary) **82g:60054**
Heinkel, B. Deux exemples d'utilisation de mesures majorantes. **82b:60038**
Hemon, Denis *See* **Richardson, Sylvia**, **82k:60086**
Hruščev, S. V. (*with* Kahane, Jean-Pierre; Katznelson, Yitzhak) Mouvement brownien et séries de Fourier absolument convergentes. (English summary) **82c:60066**
Hüsler, Jürg A note on the functional law of iterated logarithm for maxima of Gaussian sequences. **82i:60062**
Itô, Kiyosi Continuous additive $\mathcal{S}'$-processes. **82i:60063**
Kahane, Jean-Pierre *See* **Hruščev, S. V.; et al.**, **82c:60066**
Kallianpur, Gopinath *See* **Bromley, C.**, **82e:60062**
Kandelaki, N. P. (*with* Kvarachelija, V. V.) A remark on the definition of a Gaussian random process. (Russian) **82c:60067**
Katznelson, Yitzhak *See* **Hruščev, S. V.; et al.**, **82c:60066**
Kaufman, Robert P. Smooth functions and Gaussian processes. **82c:60068**
Klein, Abel (*with* Landau, Lawrence J.) Periodic Gaussian Osterwalder-Schrader positive processes and the two-sided Markov property on the circle. **82j:60061**
Kvarachelija, V. V. *See* **Kandelaki, N. P.**, **82c:60067**
Landau, Lawrence J. *See* **Klein, Abel**, **82j:60061**
Macak, Ī. K. Asymptotic properties of Gaussian processes. (Russian) **82e:60064**
Maejima, Makoto Some sojourn time problems for strongly dependent Gaussian processes. **82i:60064**
Malahov, A. N. ★Кумулянтный анализ случайных негауссовых процессов и их преобразований. (Russian) [Cumulant analysis of non-Gaussian random processes and their transformations] **82k:60084**
Malevič, T. L. Probability of finding a Gaussian stationary process above the zero level. (Russian) **82d:60072**
(*with* Tošov, N.) The maximum of a Gaussian nonstationary process. (Russian) **82d:60073**
(*with* Tošov, N.) Bounds for the maximum of a homogeneous Gaussian field. (Russian. English summary) **82i:60065**
(*with* Volodina, L. N.) Upper and lower bounds for factorial moments of the number of zeros of a Gaussian process. (Russian) **82a:60052**
Mirošin, R. N. Conditions for local regularity and finiteness of moments of the number of zeros for a differentiable Gaussian stationary process. (Russian. English summary) **82e:60065**
Convergence of Longuet-Higgins series for stationary Gaussian Markov processes of the first order. (Russian. English summary) **82e:60066**
Mitoma, Itaru On the norm continuity of $\mathcal{S}'$-valued Gaussian processes. **82h:60070**
Mosca, Edoardo Innovations informational equivalence in the independent Gaussian case. **82c:60069**
Park, Chull Representations of Gaussian processes by Wiener processes. **82j:60062**
Piterbarg, V. I. Poisson limit theorem for large excursions of a Gaussian sequence. (Russian) **82j:60063**
(*with* Prisjažnjuk, V. P.) Exact asymptotic behavior of the probability of large span of a Gaussian stationary process. (Russian. English summary) **82m:60042**
Płucińska, Agnieszka A characterization of Gaussian processes based on partial and on ordinary differential equations. (Russian summary) **82m:60043**
Ordinary differential equations for the densities of a stochastic process. **82k:60085**
Prisjažnjuk, V. P. *See* **Piterbarg, V. I.**, **82m:60042**
Puškin, L. N. Distribution of the functional $(1/T)\int_0^T x^2(t)\,dt$ from a Gaussian stationary process with zero mean and correlation function $e^{-|t|}\cos at$. (Russian) **82g:60055**
Richardson, Sylvia (*with* Hemon, Denis) On the variance of the sample correlation between two independent lattice processes. **82k:60086**
Rosenblatt, M. Limit theorems for Fourier transforms of functionals of Gaussian sequences. **82i:60066**
Ruckebusch, Guy Théorie géométrique de la représentation markovienne. (English summary) **82k:60087**
Russek, Andrzej On stochastic equations for the class of Gaussian processes. **82b:60039**
Šatašvili, A. D. *See* **Sohadze, G. A.**, **82i:60067**
Shimano, Takashi On helices and multiple Wiener integrals of a Gaussian automorphism. **82h:60071**
Sohadze, G. A. (*with* Šatašvili, A. D.) Nonlinear transformations of Gaussian measures in Hilbert space. (Russian) **82i:60067**
Tošov, N. *See* **Malevič, T. L.**, **82d:60073** *and* **82i:60065**
Volodina, L. N. Inequalities of double exponential type for distribution of the maximum of a Gaussian process on the left semiaxis. (Russian) **82k:60088**
See also **Malevič, T. L.**, **82a:60052**
Weber, Michel Sur un théorème de Maruyama. **82f:60082**
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Abrahams, Julia (*with* Thomas, John B.) Properties of the maximal correlation function. **(82g:94004)**
(*with* Thomas, John B.) Some comments on conditionally Markov and reciprocal Gaussian processes. **(82k:60074)**
Adler, Robert J. ★The geometry of random fields. **(82h:60103)**
Alekseev, V. G. Error of the spectral density estimation for a Gaussian random process. (Russian. English summary) **(82e:62151)**
Berman, Simeon M. A compound Poisson limit for stationary sums, and sojourns of Gaussian processes. **(82b:60013)**
Bobrik, R. V. Characteristic functionals in problems studying dynamical systems with random parameters. (Russian) **(82g:60078)**
Buldigin, V. V. (*with* Kozačenko, Ju. V.) Sub-Gaussian random variables. (Russian) **(82d:60023)**
Cabaña, E. M. (*with* Wschebor, M.) An estimate for the tails of the distribution of the supremum for a class of stationary multiparameter Gaussian processes. **(82e:60067)**
Chan, A. H. C. (*with* Csörgő, Miklós; Révész, Pál) Strassen type limit points for moving averages of a Wiener process. (French summary) **(82k:60061)**
Chung, Dong M. (*with* Rajput, Balram S.) Equivalent Gaussian measure whose R-N derivative is the exponential of a diagonal form. **(82j:60069)**
Clerget, M. (*with* Germain, F.) Un algorithme de lissage. **(82d:62139)**
Csörgő, Miklós ★Gaussian processes, strong approximations: an interplay. **(82e:60048)**
See also **Chan, A. H. C.; et al.**, **(82k:60061)**
Demenin, O. M. The densities of probability measures that correspond to the solutions of second-order linear differential equations with random coefficients. (Russian) **(82b:60043)**
Deo, Chandrakant M. Functional limit theorems for delayed averages of Gaussian sequences. **(82f:60067)**

Dobrušin, R. L. (*with* Kel'bert, M. Ja.) Local additive functionals of generalized Gaussian fields. (Russian) **(82e:60086)**

Egorov, A. D. Approximate formulas for integrals on the Gaussian measure with the correlation operator $(A+B)^{-1}$. (Russian. English summary) **(82i:60010)**

Enčev, O. B. *See* **Stojanov, Ĭordan M.**, **(82f:60128)**

Engelbert, H. J. (*with* Širjaev, A. N.) On absolute continuity and singularity of probability measures. **(82k:60091)**

Fremlin, D. H. (*with* Talagrand, Michel) A Gaussian measure on l^∞. **(82i:60011)**

Germain, F. *See* **Clerget, M.**, **(82d:62139)**

Gorodeckiĭ, V. V. The invariance principle for functions of stationarily connected Gaussian variables. (Russian. English summary) **(82h:60015)**

Guyon, Xavier (*with* Prum, Bernard) Identification et estimation de semi-martingales représentables par rapport à un brownien à un indice double. [Identification and estimation of semimartingales representable with respect to a double-index Brownian process] **(82k:60109)**

Hebbar, H. Vishnu Almost sure limit points of maxima of stationary Gaussian sequences. **(82b:60028)**

Heller, Eric J. Frozen Gaussians: a very simple semiclassical approximation. **(82j:81032)**

Ivanoff, B. Gail The function space $D(0,\infty)^q, E)$. (French summary) **(82j:60012)**

Ivanov, O. V. (*with* Leonenko, M. M.) On the invariance principle for estimating the correlation function of a uniform isotropic random field. (Russian) **(82k:60116)**

Jurek, Zbigniew J. On Gaussian measures on $\mathbf{R}^d$. **(82k:60047)**

Kac, A. V. (*with* Spevak, I. S.) Reconstruction of the sea-wave spectra from the measurements of moving sensors. **(82f:76008)**

Kazakos, Dimitri (*with* Papantoni-Kazakos, P.) Spectral distance measures between Gaussian processes. **(82j:62047)**

Kel'bert, M. Ja. *See* **Dobrušin, R. L.**, **(82e:60086)**

Kôno, Norio Properties of paths of stochastic processes. (Japanese) **(82j:60065)**

Körezlioğlu, Hayri (*with* Lefort, P.; Mazziotto, Gérald) Une propriété markovienne et diffusions associées. [A Markov property and associated diffusions] **(82m:60085)**

Kozačenko, Ju. V. *See* **Buldigin, V. V.**, **(82d:60023)**

Kropáč, O. A unified model for nonstationary and/or non-Gaussian random processes. **(82k:60079)**

Kühn, Thomas (*with* Linde, Werner) The r-nuclearity $(0<r\leqslant 1)$ of Gaussian covariances. **(82b:47024)**

Lefort, P. *See* **Körezlioğlu, Hayri; et al.**, **(82m:60085)**

Leonenko, M. M. *See* **Ivanov, O. V.**, **(82k:60116)**

Lifšic, M. A. On the occupation times of Gaussian stationary processes. (Russian. English summary) **(82d:60074)**

Linde, Werner *See* **Kühn, Thomas**, **(82b:47024)**

Lipovan, Octavian On probability measures in subspaces of the Banach space of bounded real measures. (Romanian. French summary) **(82g:60006)**

Marcus, Michael B. (*with* Pisier, Gilles) Caractérisation des processus p-stables, fortement stationnaires, à trajectoires continues. (English summary) [Characterization of strongly stationary p-stable processes with continuous sample paths] **(82m:60045)**

Mazziotto, Gérald *See* **Körezlioğlu, Hayri; et al.**, **(82m:60085)**

Mittal, Yashaswini Smoothing of samples for maxima. **(82c:60051)**

Miyahara, Yoshio Infinite-dimensional Langevin equation and Fokker-Planck equation. **(82e:60127)**

Newman, C. M. (*with* Wright, A. L.) An invariance principle for certain dependent sequences. **(82m:60034)**

Okazaki, Yoshiaki Gaussian measure on topological vector space. **(82m:60008)**

Papantoni-Kazakos, P. *See* **Kazakos, Dimitri**, **(82j:62047)**

Peller, V. V. Hankel operators of class $\mathfrak{S}_p$ and their applications (rational approximation, Gaussian processes, the problem of majorization of operators). (Russian) **(82g:47022)**

Philipp, Walter (*with* Pinzur, Laurence) Almost sure approximation theorems for the multivariate empirical process. **(82a:60039)**

Pinsker, M. S. Optimal filtration of square-integrable signals in Gaussian noise. **(82j:93048)**

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Pisier, Gilles *See* **Marcus, Michael B.**, **(82m:60045)**

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60G17 Sample path properties

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60G20 Generalized stochastic processes

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60G25 Prediction theory [See also 62M20.]

Anděl, Jiří On extrapolation in two-dimensional stationary processes. **82e:60068**
Arimoto, Akio Asymptotic behavior of difference between a finite predictor and an infinite predictor for a weakly stationary stochastic process. **82f:60085**
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60G30 Continuity and singularity of induced measures

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Chung, Dong M. (*with* Rajput, Balram S.) Equivalent Gaussian measure whose R-N derivative is the exponential of a diagonal form. **82j:60069**
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Rajput, Balram S. *See* **Chung, Dong M.**, **82j:60069**
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60G35 Applications (signal detection, filtering, etc.) [See also 62M20, 94Axx.]

Bagchi, Arunabha Generalized measure and likelihood functional in a continuous linear stochastic dynamical system. **82i:60073**
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60G40 Stopping times; optimal stopping problems; gambling theory [See also 62L15.]

Anderson, Robert F. Optimal stopping in a reliability problem. **82m:60047**
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Irle, Albrecht Stopping problems for general families of σ-algebras. **82j:60072**
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Kindermann, Ross P. Asymptotic comparisons of functionals of Brownian motion and random walk. **82c:60076**
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Krylov, N. V. ★Controlled diffusion processes. **82a:60062**
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Mandelbaum, A. (*with* Vanderbei, R. J.) Optimal stopping and supermartingales over partially ordered sets. **82k:60098**
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Menaldi, José-Luis On the optimal stopping time problem for degenerate diffusions. **82f:60092a**
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Mihailovskaja, L. G. Optimal stopping of a controllable diffusion process. (Russian. English summary) **82c:60077**
Munford, A. G. (*with* Lewis, S. M.) A note on gambler's ruin against an infinitely rich adversary. **82f:60093**
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Satubaldyev, D. Local limit theorems for the stopping time of a Brownian motion. (Russian) **82d:60081**
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Stadje, Wolfgang Efficient stopping of a random series of partially ordered points. **82e:60072**
Sucheston, Louis *See* **Krengel, Ulrich, 82i:60079**
Sudderth, William D. Countably additive gambling with a general expected reward. **82c:60078**
Szpirglas, Jacques *See* **Mazziotto, Gérald, 82i:60080**
Tamaki, Mitsushi *See* **Sakaguchi, Minoru, 82f:60094**
Vanderbei, R. J. *See* **Mandelbaum, A., 82k:60098**
Walsh, John B. Optional increasing paths. **82k:60101**
Yor, Marc *See* **Azéma, Jacques, 82c:60073**
Zame, Alan *See* **Chen, Robert, 82a:60060**
Zuckerman, Dror Optimal stopping in terminating one-sided processes with unbounded reward functions. (German summary) **82e:60073**

secondary classifications:

Anulova, S. V. Markov times with given distribution for a Wiener process. (Russian. English summary) **(82d:60151)**
Berry, Donald A. (*with* Fristedt, Bert) Two-armed bandits with a goal. I. One arm known. **(82g:62113a)**
(*with* Fristedt, Bert) Two-armed bandits with a goal. II. Dependent arms. **(82g:62113b)**
Bismut, Jean-Michel Problèmes à frontière libre et arbres de mesures. **(82d:60129)**
Brémaud, Pierre ★Point processes and queues. **(82m:60058)**
Chacon, R. V. (*with* Ghoussoub, N. A.) Embeddings in Brownian motion. (French summary) **(82k:60153)**
Christopeit, Norbert (*with* Helmes, Kurt) Limited risk control of the Ornstein-Uhlenbeck process. (German and Russian summaries) **(82m:93101)**
Cochlar, Jiří Optimum stopping rules on the sequence of statistically dependent vectors. **(82h:62134)**
Diaconis, Persi (*with* Graham, Ronald) The analysis of sequential experiments with feedback to subjects. **(82f:62153)**
Egghe, Leo Some new Chacon-Edgar-type inequalities for stochastic processes, and characterizations of Vitali conditions. **(82j:60081)**
Èlbakidze, N. V. A probabilistic representation of the solution of a Hammerstein-type equation. (Russian. Georgian and English summaries) **(82b:60090)**
Feyel, Denis Espaces fonctionnels de processus. **(82f:60075)**
Friedman, Avner Stochastic control with partial observations. **(82b:93052)**
Fristedt, Bert *See* **Berry, Donald A., (82g:62113a)** *and* **(82g:62113b)**
Furukawa, Nagata Nearly optimal policies and stopping times in Markov decision processes with general rewards. **(82h:90122)**
Ghoussoub, N. A. *See* **Chacon, R. V., (82k:60153)**
Graham, Ronald *See* **Diaconis, Persi, (82f:62153)**
Helmes, Kurt *See* **Christopeit, Norbert, (82m:93101)**
Irle, Albrecht Locally most powerful sequential tests for stochastic processes. **(82m:62188)**
Krylov, N. V. (*with* Pragarauskas, H.) On the Bellman equation for uniformly nondegenerate general stochastic processes. (Russian. Lithuanian and English summaries) **(82b:60102)**
Lenglart, Erik Tribus de Meyer et théorie des processus. **(82i:60054)**
Martingales et séries stochastiques en temps discret. (English summary) **(82e:60075)**
Mazziotto, Gérald (*with* Szpirglas, Jacques) Sur les discontinuités d'un processus CAD-LAG à deux indices. [On the discontinuities of a two-index CAD-LAG process] **(82m:60039)**
McGill, Paul A direct proof of the Ray-Knight theorem. **(82j:60147)**
Miller, Bruce L. Countable-state average-cost regenerative stopping problems. **(82h:90093)**
Nisio, Makiko On the optimal stopping semigroup for controlled Markov processes. **(82g:60099)**
★Lectures on stochastic control theory. **(82j:93058)**
Novikov, A. A. Estimates for and asymptotic behavior of the probabilities of a Wiener process not crossing a moving boundary. (Russian) **(82e:60132)**
Ohtsubo, Yoshio Controlled jump processes with a choice of stopping rules: a criterion of average type. **(82i:93095)**
Petruccelli, Joseph D. Best-choice problems involving uncertainty of selection and recall of observations. **(82h:62135)**
Pragarauskas, H. *See* **Krylov, N. V., (82b:60102)**

Schmidt, Klaus D. On the convergence of a bounded amart and a conjecture of Chatterji. **(82f:60116)**
Seynou, Aboubakary Sur la compatibilité temporelle d'une tribu et d'une filtration discrète. **(82h:60064)**
Stricker, Christophe Prolongement des semimartingales. **(82f:60117)**
Szpirglas, Jacques *See* **Mazziotto, Gérald, (82m:60039)**
Tkebučava, R. S. On an optimal stopping problem with small "noise". (Russian. Georgian and English summaries) **(82m:62189)**
Yor, Marc Sur certains commutateurs d'une filtration. **(82h:60065)**
Analytic sets ★Analytic sets. **(82m:03063)**
Conference:
Analytic Sets ★Analytic sets. **(82m:03063)**
London ★Analytic sets. **(82m:03063)**

60G42 Martingales with discrete parameter

Al-Hussaini, Ata A projective limit view of L_1-bounded martingales. **82i:60082**
Astbury, Kenneth A. The order convergence of martingales indexed by directed sets. **82e:60074**
Brossard, Jean Comparison des "normes" L_p du processus croissant et de la variable maximale pour les martingales régulières à deux indices. Théorème local correspondant. **82h:60048**
Cairoli, R. Sur la convergence des martingales indexées par N×N. **82f:60095**
Chen, Louis H. Y. Martingale convergence via the square function. **82h:60079**
Chen, Pei De σ-integrability and its application. (Chinese) **82c:60079**
Dellacherie, Claude Quelques applications du lemme de Borel-Cantelli à la théorie des semimartingales. **82a:60063**
Elton, John A law of large numbers for identically distributed martingale differences. **82f:60096**
Hall, Peter (*with* Heyde, C. C.) Rates of convergence in the martingale central limit theorem. **82h:60080**
Heyde, C. C. *See* **Hall, Peter, 82h:60080**
Kazamaki, Norihiko Complements on certain weighted norm inequalities in the theory of martingales. **82h:60081**
Ledoux, Michel Inégalités de Burkholder pour martingales indexées par N×N. [Burkholder inequalities for martingales indexed by N×N] **82k:60102**
Lenglart, Erik Martingales et séries stochastiques en temps discret. (English summary) **82e:60075**
Long, Rui Lin Sur l'espace H_p de martingales régulières ($0<p\leqslant 1$). (English summary) **82f:60097**
Lootgieter, Jean-Claude Sur un contre-exemple de R. F. Gundy. (English summary) **82i:60083**
Maisonneuve, Bernard Surmartingales-mesures. **82h:60082**
Mamirov, U. È. Martingale analogue of the law of the iterated logarithm. (Russian) **82k:60103**
Mogyoródi, J. Duality of the maximal inequality for nonnegative submartingales and of the convexity inequality of Burkholder. **82h:60083**
Nualart Rodón, David On the convergence of martingales. (Spanish) **82f:60098**
Schipp, Ferenc Martingales with directed index set. **82j:60074**
Shintani, Takuro A proof of the Burkholder theorem for martingale transforms. **82c:60080**
Szulga, Jerzy Regularity of Banach lattice valued martingales. **82d:60082**

secondary classifications:

Abdurasulov, H. *See* **Sarymsakov, T. A., (82d:60055)**
Basu, A. K. On the rate of approximation in the central limit theorem for dependent random variables and random vectors. **(82e:60031)**
Gerber, Hans U. (*with* Li, Shuo-Yen Robert) The occurrence of sequence patterns in repeated experiments and hitting times in a Markov chain. **(82f:60154)**
Gouet, Raul La méthode des martingales dans l'étude des extrêmes. (English summary) [Martingale method in the study of extremes] **(82k:60113)**
Hoekstra, A. H. (*with* Runnenburg, J. Th.) Inequalities compared. **(82d:60031)**
Li, Shuo-Yen Robert A martingale approach to the study of occurrence of sequence patterns in repeated experiments. **(82c:60018)**
See also **Gerber, Hans U., (82f:60154)**
Lipcer, R. Š. (*with* Širjaev, A. N.) A functional central limit theorem for semimartingales. (Russian. English summary) **(82d:60039)**
Millet, Annie (*with* Sucheston, Louis) On convergence of L_1-bounded martingales indexed by directed sets. **(82k:60016)**
Mišura, Ju. S. Properties of quadratic variation of two-parameter strong martingales. (Russian. English summary) **(82m:60054)**
Moek, G. ★On martingales and recursive optimal state estimation. **(82i:60075)**
Móri, Tamás F. On the rate of convergence in the martingale central limit theorem. **(82e:60040)**
Novikov, A. A. On the time of exit of sums of bounded random variables from a curvilinear strip. (Russian. English summary) **(82h:60099)**
Pitman, Jim W. A note on L_2 maximal inequalities. **(82h:60090)**
Runnenburg, J. Th. *See* **Hoekstra, A. H., (82d:60031)**
Sarymsakov, T. A. (*with* Abdurasulov, H.) A martingale analogue of the strong law of large numbers. (Russian) **(82d:60055)**
Širjaev, A. N. *See* **Lipcer, R. Š., (82d:60039)**
Sucheston, Louis *See* **Millet, Annie, (82k:60016)**

60G44 Martingales with continuous parameter

Astbury, Kenneth A. Order convergence of martingales in terms of countably additive and purely finitely additive martingales. **82e:60081**
Auerhan, J. (*with* Lépingle, D.; Yor, Marc) Construction d'une martingale réelle continue, de filtration naturelle donnée. **82e:60076**
(*with* Lépingle, D.) Les filtrations de certaines martingales du mouvement brownien dans $\mathbf{R}^n$. II. **82k:60104**
Azéma, Jacques (*with* Gundy, Richard F.; Yor, Marc) Sur l'intégrabilité uniforme des martingales continues. **82d:60083**
Barlow, Martin (*with* Yor, Marc) Sur la construction d'une martingale continue, de valeur absolue donnée. **82f:60099**
Basseville, Michèle Déviations par rapport au maximum: formules d'arrêt et martingales associées. **82e:60077**
Benveniste, Albert (*with* Jacod, Jean) One application of the representation theorem for martingales: isomorphism for flows of processes with independent increments. (Russian and Lithuanian summaries) **82a:60064**
Bouleau, Nicolas Semi-martingales à valeurs $\mathbf{R}^d$ et fonctions convexes. (English summary) **82c:60082**
Brossard, Jean (*with* Chevalier, L.) Calcul stochastique et inégalités de norme pour les martingales bi-browniennes. Application aux fonctions bi-harmoniques. **82c:60083**
Bruneau, Michel Sur la p-variation d'une surmartingale continue. **82c:60084**
Chatterji, S. D. Multiparameter processes and vector-valued processes. **82f:60100**
Chevalier, L. *See* **Brossard, Jean, 82c:60083**
Chou, Ching Sung Démonstration simple d'un résultat sur le temps local. **82a:60065a**
Une inégalité de martingales avec poids. **82i:60084**
See also **Yoeurp, Chantha, 82a:60065b**
Çinlar, E. (*with* Jacod, Jean; Protter, Philip; Sharpe, M. J.) Semimartingales and Markov processes. **82h:60084**
Cocozza, C. (*with* Yor, Marc) Démonstration d'un théorème de F. Knight à l'aide de martingales exponentielles. **82h:60085**
Engelbert, H. J. (*with* Heß, Juliane) A probabilistic approach to the representation problem of martingales as stochastic integral. **82g:60057**
(*with* Heß, Juliane) Integral representation with respect to stopped continuous local martingales. **82f:60101**
Fischer, Hans Jürgen Structure of martingales under random change of time. **82h:60086**
Gal'čuk, L. I. On the predictable jumps of martingales. **82f:60102**
Optional martingales. (Russian) **82f:60103**
Stable subspaces and a theorem on the decomposition of martingales. (Russian. English summary) **82c:60085**
Guess, Harry A. An invariance principle for solutions to stochastic difference equations. **82h:60087**
Gundy, Richard F. *See* **Azéma, Jacques; et al., 82d:60083**
He, Sheng Wu *See* **Zheng, Wei An, 82f:60110**
Heß, Juliane *See* **Engelbert, H. J., 82f:60101** *and* **Engelbert, H. J., 82g:60057**
Jacod, Jean *See* **Benveniste, Albert, 82a:60064** *and* **Çinlar, E.; et al., 82h:60084**
Jeulin, Thierry (*with* Yor, Marc) Inégalité de Hardy, semimartingales, et faux-amis. **82d:60084**
(*with* Yor, Marc) Sur l'expression de la dualité entre H^1 et BMO. **82d:60085**
Kubilius, K. Asymptotic behavior of distributions of martingales with a continuous parameter. (Russian. Lithuanian and English summaries) **82e:60078**
Lebedev, V. A. Relative compactness of families of distributions of semimartingales. (Russian. English summary) **82d:60086**
Le Jan, Yves Martingales et changements de temps. **82h:60088**
Lenglart, Erik (*with* Lépingle, D.; Pratelli, M.) Présentation unifiée de certaines inégalités de la théorie des martingales. **82d:60087**
Sur l'inégalité de Métivier-Pellaumail. **82d:60088**
Lépingle, D. (*with* Mémin, Jean) Intégrabilité uniforme et dans L^r des martingales exponentielles. **82f:60104**
(*with* Meyer, Paul-André; Yor, Marc) Extrémalité et remplissage de tribus pour certaines martingales purement discontinues. **82i:60086**
See also **Lenglart, Erik; et al., 82d:60087**; **Auerhan, J.; et al., 82e:60076** *and* **82k:60104**
Maisonneuve, Bernard Martingales de valeur absolue donnée, d'après Protter et Sharpe. (English summary) **82f:60105**
Mémin, Jean *See* **Lépingle, D., 82f:60104**
Meyer, Paul-André Présentation de l'"inégalité de Doob" de Métivier-Pellaumail. **82f:60106**
Les résultats de Jeulin sur le grossissement des tribus. **82h:60089**
See also **Lépingle, D.; et al., 82i:60086**
Mikulevičius, R. On the existence and uniqueness of the solutions of the martingale problem on a manifold with boundary. (Russian. Lithuanian and English summaries) **82k:60105**
Millet, Annie (*with* Sucheston, Louis) Convergence et régularité des martingales à indices multiples. (English summary) **82b:60049**
Mišura, Ju. S. Expansion of two-parameter martingales into orthogonal components. (Russian. English summary) **82j:60075**
Mitoma, Itaru Martingales of random distributions. **82e:60079**
Novikov, A. A. On conditions for uniform integrability for continuous exponential martingales. **82g:60058**
Pavlov, I. V. Extreme rays and integral representation in the cone of martingales. (Russian. English summary) **82f:60107**
Pierre, Michel Le problème de Skorokhod: une remarque sur la démonstration d'Azéma-Yor. **82f:60108**
Pitman, Jim W. A note on L_2 maximal inequalities. **82h:60090**
Pratelli, M. *See* **Lenglart, Erik; et al., 82d:60087**
Protter, Philip *See* **Çinlar, E.; et al., 82h:60084**
Radavičius, M. On the problem of generalizing a theorem of P. Lévy. (Russian. Lithuanian and English summaries) **82b:60050**
Rebolledo, Rolando Décomposition de martingales locales et raréfaction des sauts. **82c:60086a**
Corrections à: "Décomposition de martingales locales et raréfaction des sauts". **82c:60086b**
Schwartz, Laurent Survey of the theory of martingales. **82d:60089**
Sekiguchi, Takeshi Weighted norm inequalities on the martingale theory. **82c:60087**
Sharpe, M. J. Local times and singularities of continuous local martingales. **82d:60090**
See also **Çinlar, E.; et al., 82h:60084**

Sidibé, R. Martingales locales à accroissements indépendants. **82e:60080**
Stettner, Ł. (*with* Zabczyk, J.) Strong envelopes of stochastic processes and a penalty method. **82e:60081**
Stricker, Christophe Sur la p-variation des surmartingales. **82a:60066**
Une remarque sur l'exposé précédent. **82a:60067**
Stroock, Daniel W. (*with* Yor, Marc) On extremal solutions of martingale problems. **82b:60051**
(*with* Yor, Marc) Some remarkable martingales. **82i:60085**
Sucheston, Louis *See* **Millet, Annie, 82b:60049**
Tudor, Constantin Remarks on the martingale problem in the two-dimensional time parameter. **82j:60076**
Yan, Jia An Remarques sur certaines classes de semimartingales et sur les intégrales stochastiques optionnelles. **82h:60091**
A note on E. Lenglart's results. (Chinese) **82c:60088**
Some formulas for the local time of semimartingales. (Chinese. English summary) **82j:60077**
Yoeurp, Chantha Rectificatif à l'exposé: "Démonstration simple d'un résultat sur le temps local" [Séminaire de Probabilités, XIII (Univ. Strasbourg, Strasbourg, 1977/1978), pp. 441–442, Lecture Notes in Math., 721, Springer, Berlin, 1979; MR 82a:60065a] de C. S. Chou. **82a:60065b**
Yor, Marc *See* **Stroock, Daniel W., 82b:60051; Azéma, Jacques; et al., 82d:60083; Jeulin, Thierry, 82d:60084; 82d:60085; Auerhan, J.; et al., 82e:60076; Barlow, Martin, 82f:60099; Cocozza, C., 82h:60085; Stroock, Daniel W., 82i:60085** *and* **Lépingle, D.; et al., 82i:60086**
Zabczyk, J. *See* **Stettner, Ł., 82e:60081**
Zakai, Moshe Some classes of two-parameter martingales. **82f:60109**
Zheng, Wei An (*with* He, Sheng Wu) On local times and trajectories of the continuous local martingales. (Chinese. English summary) **82f:60110**

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Astbury, Kenneth A. The order convergence of martingales indexed by directed sets. **(82e:60074)**
Azéma, Jacques (*with* Yor, Marc) Une solution simple au problème de Skorokhod. **(82c:60073a)**
(*with* Yor, Marc) Le problème de Skorokhod: compléments à "Une solution simple au problème de Skorokhod". **(82c:60073b)**
Barlow, Martin Construction of a martingale with given absolute value. **(82j:60079)**
(*with* Yor, Marc) (Semi-) martingale inequalities and local times. **(82h:60092)**
Bouleau, Nicolas (*with* Yor, Marc) Sur la variation quadratique des temps locaux de certaines semimartingales. (English summary) **(82d:60143)**
Bourgain, Jean (*with* Rosenthal, H. P.) Martingales valued in certain subspaces of L^1. **(82g:46044)**
Brandi, Primo (*with* Salvadori, Anna) Martingales and Burkill-Cesari integrals. (Italian. English summary) **(82m:28016)**
Bromley, C. (*with* Kallianpur, Gopinath) Gaussian random fields. **(82e:60062)**
Chaleyat-Maurel, M. (*with* El Karoui, Nicole; Marchal, B.) Réflexion discontinue et systèmes stochastiques. (English summary) **(82k:60135)**
Chung, Kai Lai Brownian motion on the line. **(82k:60154)**
Dellacherie, Claude Un survol de la théorie de l'intégrale stochastique. **(82f:60125)**
Dozzi, Markus Two-parameter harnesses and the Wiener process. **(82h:60152)**
El Karoui, Nicole *See* **Chaleyat-Maurel, M.; et al., (82k:60135)**
Elliott, Robert J. Stochastic integration and discontinuous martingales. **(82j:60097)**
Engelbert, H. J. (*with* Heß, Juliane) Stochastic integrals of continuous local martingales. I. **(82c:60099)**
Föllmer, Hans Dirichlet processes. **(82i:60088)**
Fouque, Jean-Pierre Passé d'un point d'arrêt et arrêt des processus à deux indices. (English summary) [Past of a stopping point and stopped two-parameter process] **(82k:60097)**
Gal'čuk, L. I. A change of variables formula. (Russian) **(82c:60100)**
Grigelionis, Bronius A martingale approach to the statistical problems of point processes. **(82g:60063)**
Hametov, V. M. *See* **Kul'man, N. K., (82d:60078)**
Heß, Juliane *See* **Engelbert, H. J., (82c:60099)**
Jacod, Jean Intégrales stochastiques par rapport à une semimartingale vectorielle et changements de filtration. **(82g:60073)**
Jeulin, Thierry ★Semi-martingales et grossissement d'une filtration. (French) [Semimartingales and enlargement of a filtration] **(82h:60106)**
Kabanov, Ju. M. (*with* Lipcer, R. Š.; Širjaev, A. N.) On absolute continuity of probability measures for Markov-Itô processes. **(82j:60106)**
(*with* Lipcer, R. Š.; Širjaev, A. N.) Some limit theorems for simple point processes (a martingale approach). **(82a:60027)**
Kallianpur, Gopinath *See* **Bromley, C., (82e:60062)**
Kul'man, N. K. (*with* Hametov, V. M.) Equations for nonlinear filtering of semimartingales. (Russian) **(82d:60078)**
Kurtz, Thomas G. Representations of Markov processes as multiparameter time changes. **(82d:60130)**
Lebedev, V. A. A weak compactness condition for semimartingales. (Russian) **(82d:60012)**
Lépingle, D. Sur les lois de certains temps d'entrée. **(82j:60073)**
Lipcer, R. Š. (*with* Širjaev, A. N.) A functional central limit theorem for semimartingales. (Russian. English summary) **(82d:60039)**
See also **Kabanov, Ju. M.; et al., (82a:60027)** *and* **(82j:60106)**
Marchal, B. *See* **Chaleyat-Maurel, M.; et al., (82k:60135)**
Mazziotto, Gérald (*with* Merzbach, Ely; Szpirglas, Jacques) Discontinuités des processus croissants et martingales à variation intégrable. [Discontinuities of increasing processes and martingales with integrable variation] **(82m:60038)**
Mémin, Jean (*with* Širjaev, A. N.) Un critère prévisible pour l'uniforme intégrabilité des semimartingales exponentielles. **(82c:60091)**
Merzbach, Ely *See* **Mazziotto, Gérald; et al., (82m:60038)**
Métivier, Michel (*with* Pellaumail, Jean) ★Stochastic integration. **(82k:60060)**
Mikulevičius, R. On the existence of solutions of the martingale problem in a manifold with a boundary. (Russian. Lithuanian and English summaries) **(82e:60096)**
Nguyen-Xuan-Loc Singularities of locally analytic processes (with applications in the study of finely holomorphic and finely harmonic functions). **(82a:60115)**
Nualart, D. (*with* Sanz, M.) Changing time for two-parameter strong martingales. (French summary) **(82i:60081)**
Okada, Norio A martingale problem associated with diffusion operators in a domain. **(82j:60148)**
Pellaumail, Jean *See* **Métivier, Michel, (82b:60060)**
Rodríguez-Salinas, Baltasar The Radon-Nikodým property, σ-dentability and martingales in locally convex spaces. (Spanish. English summary) **(82i:46063)**
Rosenthal, H. P. *See* **Bourgain, Jean, (82g:46044)**
Salvadori, Anna *See* **Brandi, Primo, (82m:28016)**
Sanz, M. *See* **Nualart, D., (82i:60081)**
Širjaev, A. N. *See* **Kabanov, Ju. M.; et al., (82a:60027); Mémin, Jean, (82c:60091); Lipcer, R. Š., (82d:60039)** *and* **Kabanov, Ju. M.; et al., (82j:60106)**
Stricker, Christophe Projection optionnelle et semimartingales. **(82g:60062)**
Sznitman, Alain-Sol Martingales dépendant d'un paramètre: une formule d'Itô. (English summary) [Martingales depending on a parameter: an Itô formula] **(82m:60072)**
Szpirglas, Jacques *See* **Mazziotto, Gérald; et al., (82m:60038)**
Walsh, John B. Optional increasing paths. **(82k:60101)**
Wang, Jia Gang The uniform integrability of a class of exponential martingales. (Chinese summary) **(82k:60124)**
Yan, Jia An Propriété de représentation prévisible pour les semimartingales spéciales. **(82e:60083)**
Yoeurp, Chantha Sur la dérivation stochastique au sens de M. H. A. Davis. **(82j:60100)**
Yor, Marc *See* **Azéma, Jacques, (82c:60073a); (82c:60073b); Bouleau, Nicolas, (82d:60143)** *and* **Barlow, Martin, (82h:60092)**
Zakai, Moshe Some remarks on integration with respect to weak martingales. **(82k:60125)**

60G46 Martingales and classical analysis

Bru, B. (*with* Heinich, H.; Lootgieter, Jean-Claude) Autour de la dualité (H^1, BMO). **82m:60048**
Burkholder, D. L. Martingale theory and harmonic analysis in Euclidean spaces. **82c:60089**
Chao, J. A. Triadic and dyadic conjugate martingales. **82d:60091**
Chatterji, S. D. Some comments on the maximal inequality in martingale theory. **82a:60068**
Emery, M. Le théorème de Garnett-Jones, d'après Varopoulos. **82m:60049**
Gundy, Richard F. Inégalités pour martingales à un et deux indices: l'espace H^p. **82g:60059**
On a theorem of F. and M. Riesz and an equation of A. Wald. **82k:60106**
Heinich, H. *See* **Bru, B.; et al., 82m:60048**
Lootgieter, Jean-Claude *See* **Bru, B.; et al., 82m:60048**
Meyer, Paul-André Retour sur la théorie de Littlewood-Paley. **82m:60050**
Millet, Annie (*with* Sucheston, Louis) On covering conditions and convergence. **82f:60111**
Morimoto, Hiroaki The dual space of the space BMO for a stochastic point process. **82f:60112**
The space BMO and optimal exponential martingales. **82j:60078**
Protter, Philip An extension of Kazamaki's results on BMO differentials. **82f:60113**
Saisho, Yasumasa A note on conformal martingales. **82k:60107**
Schwartz, Laurent ★Semi-martingales sur des variétés, et martingales conformes sur des variétés analytiques complexes. (French) [Semimartingales on manifolds, and conformal martingales on complex analytic manifolds] **82m:60051**
Sucheston, Louis *See* **Millet, Annie, 82f:60111**
Varopoulos, Nicholas Th. The Helson-Szegő theorem and A_p-functions for Brownian motion and several variables. **82a:60069**
Yan, Jia An Caractérisation d'une classe d'ensembles convexes de L^1 ou H^1. **82c:60090**

secondary classifications:

Brossard, Jean (*with* Chevalier, L.) Calcul stochastique et inégalités de norme pour les martingales bi-browniennes. Application aux fonctions bi-harmoniques. **(82c:60083)**
Comparison des "normes" L_p du processus croissant et de la variable maximale pour les martingales régulières à deux indices. Théorème local correspondant. **(82b:60048)**
Chevalier, L. *See* **Brossard, Jean, (82c:60083)**
Long, Rui Lin Sur l'espace H_p de martingales régulières ($0<p\leqslant 1$). (English summary) **(82f:60097)**
Métivier, Michel (*with* Pellaumail, Jean) ★Stochastic integration. **(82k:60060)**
Milman, Mario On the interpolation of martingale L^p spaces. **(82d:46048)**
Pellaumail, Jean *See* **Métivier, Michel, (82b:60060)**
Sekiguchi, Takeshi Weighted norm inequalities on the martingale theory. **(82c:60087)**
Stricker, Christophe Prolongement des semimartingales. **(82f:60117)**
Varopoulos, Nicholas Th. Aspects of probabilistic Littlewood-Paley theory. **(82d:42016)**
A probabilistic proof of the Garnett-Jones theorem on BMO. **(82f:60181)**
Probabilistic approach to some problems in complex analysis. (French summary) **(82k:32025)**

60G48 Generalizations of martingales

Barlow, Martin Construction of a martingale with given absolute value. **82j:60079**
(*with* Yor, Marc) (Semi-) martingale inequalities and local times. **82h:60092**
Bernard, Alain Espaces H^1 de martingales à deux indices. Dualité avec les martingales de type "BMO". (English summary) **82d:60092**
Blake, Louis H. Tempered processes and a Riesz decomposition for some martingales in the limit. **82e:60082**

Chevalier, L. L^p-inequalities for two-parameter martingales. **82h:60093**
Chou, Ching Sung Une caractérisation des semimartingales spéciales. **82h:60094**
Dào Quang Tuyèn On the asymptotic behaviour of sequences of random variables and of their previsible compensators. **82e:60108**
Dellacherie, Claude (*with* Lenglart, Erik) Sur des problèmes de régularisation, de recollement et d'interpolation en théorie des martingales. **82j:60080**
Edgar, Gerald A. (*with* Sucheston, Louis) Démonstrations de lois des grands nombres par les sous-martingales descendantes. (English summary) [Demonstrations of the laws of large numbers by descending submartingales] **82i:60087**
Egghe, Leo Some new Chacon-Edgar-type inequalities for stochastic processes, and characterizations of Vitali conditions. **82j:60081**
Strong convergence of pramarts in Banach spaces. **82m:60052**
El Karoui, Nicole À propos de la formule d'Azéma-Yor. **82f:60118e**
Eršov, M. P. Weak compactness of continuous semimartingales. (Russian. English summary) **82f:60114**
Föllmer, Hans Dirichlet processes. **82i:60088**
Gal'čuk, L. I. Decomposition of optional supermartingales. (Russian) **82j:60082**
Grigelionis, Bronius (*with* Mikulevičius, R.) On semimartingales with values in Euclidean halfspaces. **82i:60089**
(*with* Mikulevičius, R.) Stochastic processes with penetrable boundaries. (Russian. Lithuanian and English summaries) **82h:60052**
Guyon, Xavier (*with* Prum, Bernard) Identification et estimation de semi-martingales représentables par rapport à un brownien à un indice double. [Identification and estimation of semimartingales representable with respect to a double-index Brownian process] **82k:60109**
(*with* Prum, Bernard) Variations-produit et formule de Itô pour les semi-martingales représentables à deux paramètres. **82i:60090**
Hajek, Bruce (*with* Wong, Eugene) Representation and transformation of two-parameter martingales under a change of measure. **82h:60095**
Henstock, Ralph Division spaces, vector-valued functions and backwards martingales. **82i:60091**
Jacod, Jean (*with* Mémin, Jean) Un nouveau critère de compacité relative pour une suite de processus. **82k:60110**
Kubacki, Krzysztof S. (*with* Szynal, Dominik) Bernstein's inequality for a class of asymptotic martingales. (Russian summary) **82g:60060**
Lenglart, Erik *See* **Dellacherie, Claude, 82j:60080**
Leonenko, M. M. (*with* Mišura, Ju. S.) On the invariance principle for multiparameter martingales. (Russian. English summary) **82j:60083**
Letta, G. Quasimartingales et formes linéaires associées. **82i:60092**
Mémin, Jean (*with* Širjaev, A. N.) Un critère prévisible pour l'uniforme intégrabilité des semimartingales exponentielles. **82c:60091**
See also **Jacod, Jean, 82k:60110**
Merzbach, Ely (*with* Zakai, Moshe) Predictable and dual predictable projections of two-parameter stochastic processes. **82h:60053**
Meyer, Paul-André (*with* Stricker, Christophe; Yor, Marc) Sur une formule de la théorie du balayage. **82f:60118c**
Construction de quasimartingales s'annulant sur un ensemble donné. **82f:60118f**
Sur un résultat de L. Schwartz. **82h:60096**
Mikulevičius, R. *See* **Grigelionis, Bronius, 82b:60052** *and* **82i:60089**
Millet, Annie Convergence and regularity of strong submartingales. **82k:60111**
(*with* Sucheston, Louis) Demi-convergence des processus à deux indices. (English summary) [Demiconvergence of two-parameter processes] **82m:60053**
(*with* Sucheston, Louis) On regularity of multiparameter amarts and martingales. **82f:60120**
Mišura, Ju. S. The Doob-Meyer decomposition for two-parameter semimartingales. (Russian. English summary) **82f:60115**
Two-parameter semimartingales and point random fields. (Russian. English summary) **82j:60084**
Solution of the general martingale problem for two-parameter functions. (Ukrainian. English and Russian summaries) **82m:60055**
Properties of quadratic variation of two-parameter strong martingales. (Russian. English summary) **82m:60054**
See also **Leonenko, M. M., 82j:60083**
Morkvėnas, R. On the Riesz-Rao decomposition for quasimartingales on the plane. (Russian. Lithuanian and English summaries) **82j:60085**
Niculescu, Ştefan P. Optional stopping for denumerable time martingales in universal semifields. **82g:60061a**
Doob's inequalities for denumerable time supermartingales in universal semifields. **82g:60061b**
Nualart, D. Martingales à variation indépendante du chemin. [Martingales with path independent variation] **82k:60112**
Perkins, Edwin On the uniqueness of a local martingale with a given absolute value. **82m:60056**
Prum, Bernard *See* **Guyon, Xavier, 82i:60090** *and* **82k:60109**
Schmidt, Klaus D. On the convergence of a bounded amart and a conjecture of Chatterji. **82f:60116**
Schwartz, Laurent Les semi-martingales et la théorie de la mesure. **82d:60093**
Les semi-martingales formelles. **82i:60093**
Širjaev, A. N. *See* **Mémin, Jean, 82c:60091**
Stricker, Christophe Semimartingales et valeur absolue. **82f:60118b**
Encore une remarque sur la "formule de balayage". **82f:60118d**
Prolongement des semimartingales. **82f:60117**
Projection optionnelle et semimartingales. **82g:60062**
Sur deux questions posées par L. Schwartz. **82j:60086**
Quasimartingales et variations. **82j:60087**
Quelques remarques sur la topologie des semimartingales. Applications aux intégrales stochastiques. **82j:60088**
Sur la caractérisation des semimartingales. **82j:60089**
See also **Meyer, Paul-André; et al., 82f:60118c**
Sucheston, Louis *See* **Millet, Annie, 82f:60120; Edgar, Gerald A., 82i:60087** *and* **Millet, Annie, 82m:60053**
Szynal, Dominik *See* **Kubacki, Krzysztof S., 82g:60060**
Wong, Eugene *See* **Hajek, Bruce, 82h:60095**
Yan, Jia An Propriété de représentation prévisible pour les semimartingales spéciales. **82e:60083**
Yoeurp, Chantha Sauts additifs et sauts multiplicatifs des semi-martingales. **82a:60070**
Yor, Marc Sur le balayage des semi-martingales continues. **82f:60118a**
See also **Meyer, Paul-André; et al., 82f:60118c** *and* **Barlow, Martin, 82h:60092**
Zakai, Moshe *See* **Merzbach, Ely, 82h:60053**

secondary classifications:

Al-Hussaini, Ata (*with* Elliott, Robert J.) Stochastic calculus for a two-parameter jump process. **(82k:60121)**
Allain, Marie-France Tribus prévisibles et espaces de processus à trajectoires continues indexés par un espace localement compact et métrisable. **(82f:60074)**
Anulova, S. V. Diffusion processes with singular characteristics. **(82k:60151)**
Bakry, D. Théorèmes de section et de projection pour les processus à deux indices. **(82e:60057)**
Barlow, Martin On the left end points of Brownian excursions. **(82h:60150)**
On Brownian local time. **(82h:60149)**
Barnett, Christopher Supermartingales on semifinite von Neumann algebras. **(82h:46085)**
Bellow, Alexandra (*with* Egghe, Leo) Inégalités de Fatou généralisées. (English summary) **(82f:60023)**
Bichteler, Klaus Stochastic integrators. **(82k:60122)**
Stochastic integration and L^p-theory of semimartingales. **(82g:60071)**
Bismut, Jean-Michel A generalized formula of Itô and some other properties of stochastic flows. **(82e:60093)**
Martingales, the Malliavin calculus and hypoellipticity under general Hörmander's conditions. **(82k:60134)**
Bourgain, Jean Dunford-Pettis operators on L^1 and the Radon-Nikodým property. **(82k:47047a)**
A characterization of non-Dunford-Pettis operators on L^1. **(82k:47047b)**
Brennan, Michael D. Riemann-Stieltjes quasimartingale integration. **(82c:60098)**
Dozzi, Markus On the decomposition and integration of two-parameter stochastic processes. **(82k:60123)**
Egghe, Leo A new characterization of Banach spaces X for which every operator in $\mathcal{L}(L^1, X)$ is completely continuous. **(82d:46033)**
See also **Bellow, Alexandra, (82f:60023)**
Elliott, Robert J. *See* **Al-Hussaini, Ata, (82k:60121)**
Fukushima, Masatoshi On a representation of local martingale additive functionals of symmetric diffusions. **(82j:60141)**
Gyöngy, I. (*with* Krylov, N. V.) On stochastic equations with respect to semimartingales. I. **(82j:60104)**
Hajek, Bruce (*with* Wong, Eugene) Set-parametered martingales and multiple stochastic integration. **(82h:60105)**
Herrndorf, Norbert Counterexamples to results of M. M. Rao. **(82f:46030)**
Hu, Xuan Da (*with* Yu, Zhong Ming) Comparison theorem and stochastic differential equations. II. (Chinese. English summary) **(82f:60136b)**
Jacod, Jean (*with* Mémin, Jean) Existence of weak solutions for stochastic differential equations with driving semimartingales. **(82i:60107)**
Une condition d'existence et d'unicité pour les solutions fortes d'équations différentielles stochastiques. (English summary) **(82j:60105)**
Krylov, N. V. *See* **Gyöngy, I., (82j:60104)**
Ledoux, Michel Inégalités de Burkholder pour martingales indexées par $\mathbf{N}\times\mathbf{N}$. [Burkholder inequalities for martingales indexed by $\mathbf{N}\times\mathbf{N}$] **(82k:60102)**
Lenglart, Erik Tribus de Meyer et théorie des processus. **(82i:60054)**
Martingales et séries stochastiques en temps discret. (English summary) **(82e:60075)**
Lipcer, R. Š. (*with* Širjaev, A. N.) Necessary and sufficient conditions in the functional central limit theorem for semimartingales. (Russian. English summary) **(82e:60039)**
Manija, M. G. Absolute continuity and singularity of probability distributions of random fields. (Russian) **(82f:60087)**
Marcus, Steven I. Modeling and approximation of stochastic differential equations driven by semimartingales. **(82g:60082)**
Mazziotto, Gérald (*with* Szpirglas, Jacques) Un exemple de processus à deux indices sans l'hypothèse F4. **(82i:60055)**
Mémin, Jean *See* **Jacod, Jean, (82i:60107)**
Millet, Annie (*with* Sucheston, Louis) On covering conditions and convergence. **(82f:60111)**
Schipp, Ferenc Martingales with directed index set. **(82j:60074)**
Schwartz, Laurent ★Semi-martingales sur des variétés, et martingales conformes sur des variétés analytiques complexes. (French) [Semimartingales on manifolds, and conformal martingales on complex analytic manifolds] **(82m:60051)**
Širjaev, A. N. Absolute continuity and singularity of probability measures in functional spaces. **(82f:60088)**
See also **Lipcer, R. Š., (82e:60039)**
Sucheston, Louis *See* **Millet, Annie, (82f:60111)**
Szpirglas, Jacques *See* **Mazziotto, Gérald, (82i:60055)**
Wong, Eugene *See* **Hajek, Bruce, (82h:60105)**
Yasue, Kunio Stochastic calculus of variations. **(82g:60086)**
Yu, Zhong Ming *See* **Hu, Xuan Da, (82f:60136b)**

60G50 Sums of independent random variables

Ahmad, Ibrahim A. Conditioned concentration functions for sums of independent random variables. **82c:60092**
On concentration functions of random sums of independent random variables. **82e:60084**
Gouet, Raul La méthode des martingales dans l'étude des extrêmes. (English summary) [Martingale method in the study of extremes] **82k:60113**

Klass, Michael J. Precision bounds for the relative error in the approximation of $E|S_n|$ and extensions. **82h:60097**
A method of approximating expectations of functions of sums of independent random variables. **82f:60119**
Mirošnikov, A. L. (*with* Rogozin, B. A.) Inequalities for concentration functions. (Russian. English summary) **82b:60054**
Novikov, A. A. Estimates and asymptotic behavior of the probability of not crossing moving boundaries by sums of independent random variables. (Russian) **82a:60071**
On the time of exit of sums of bounded random variables from a curvilinear strip. (Russian. English summary) **82h:60099**
Reeds, James Monotonicity of an integral of M. Klass. **82h:60098**
Rogozin, B. A. *See* **Mirošnikov, A. L., 82b:60054**
Spencer, Joel H. Balancing unit vectors. **82f:60121**
Ulbricht, Ralf Weighted sums of independent identically distributed random variables. **82j:60090**

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Ahmad, Ibrahim A. Conditioned rates of convergence in the CLT for sums and maximum sums. **(82e:60030)**
Cairoli, R. (*with* Gabriel, J.-P.) Arrêt de certaines suites multiples de variables aléatoires indépendantes. **(82a:60059)**
Chow, Y. S. (*with* Hsiung, Chao Agnes; Yu, Kai Fun) Limit theorems for a positively drifting process and its related first passage times. **(82a:60127)**
Csörgő, Miklós (*with* Steinebach, Josef) Improved Erdős-Rényi and strong approximation laws for increments of partial sums. **(82k:60063)**
Cuzick, Jack Riemann R_1-summability of independent, identically distributed random variables. **(82j:40008)**
Daugavet, A. I. Convergence rates of some numerical characteristics of distributions in the central limit theorem. (Russian. English summary) **(82k:60042)**
Gabriel, J.-P. *See* **Cairoli, R., (82a:60059)**
Gafurov, M. U. On the first passage time of a multidimensional random walk beyond expanding sets. (Russian) **(82d:60124)**
Hsiung, Chao Agnes *See* **Chow, Y. S.; et al., (82a:60127)**
Macak, Ī. K. (*with* Plīčko, A. M.) Sums of independent random variables in Banach spaces. (Russian. English summary) **(82h:60015)**
Major, Péter An improvement of Strassen's invariance principle. **(82f:60069)**
Millet, Annie (*with* Sucheston, Louis) On regularity of multiparameter amarts and martingales. **(82f:60120)**
Plīčko, A. M. *See* **Macak, Ī. K., (82h:60015)**
Siražđinov, S. H. Asymptotic expression for Euler numbers. (Russian) **(82g:05010)**
Steinebach, Josef *See* **Csörgő, Miklós, (82k:60063)**
Sucheston, Louis *See* **Millet, Annie, (82f:60120)**
Surgailis, D. Convergence of sums of nonlinear functions of moving averages to self-similar processes. (Russian) **(82k:60071)**
Tomkins, R. J. Limit theorems without moment hypotheses for sums of independent random variables. **(82b:60023)**
Ventcel', A. D. Large deviations for stochastic processes. (Russian) **(82c:60052)**
Wright, F. T. Sums of random variables indexed by a partially ordered set and the estimation of integral regression functions. **(82m:60035)**
Yu, Kai Fun *See* **Chow, Y. S.; et al., (82a:60127)**
Zaicev, A. Ju. The estimation of proximity of distributions of sequential sums of independent identically distributed random vectors. (Russian. English summary) **(82b:60024)**

60G55 Point processes

Ambarcumjan, R. V. (*with* Nahapet'jan, B. S.) The Palm distribution and limit theorems for random point processes. (Russian. Armenian summary) **82c:60093**
Athreya, K. B. (*with* Tweedie, R. L.; Vere-Jones, D.) Asymptotic behaviour of point processes with Markov-dependent intervals. **82m:60057**
Banys, Rimas On superpositions of random measures and point processes. **82f:60122**
Besson, Jean-Luc Processus ponctuel des maximums relatifs des trajectoires de certaines fonctions aléatoires. (English summary) **82f:60123**
Brémaud, Pierre ★Point processes and queues. **82m:60058**
Brown, Thomas Craig (*with* Silverman, B. W.; Milne, R. K.) A class of two-type point processes. **82k:60114**
Brown, Timothy Carlisle Compensators and Cox convergence. **82i:60094**
Burnett, R. T. (*with* Wasan, M. T.) The negative binomial point process and its inference. (*See* **81m:62005**)
Cox, David Roxbee (*with* Isham, Valerie) ★Point processes. **82j:60091**
Debes, Hermann Random motions of infinite particle systems on $\mathbb{R}^1$ without overtaking. (Russian) **82h:60100**
De Vylder, Fl. (*with* Haezendonck, J.) Explosions in random point processes. **82b:60055**
See also **Haezendonck, J., 82a:60072**
Fleischmann, K. Continuity properties of clustered stochastic point processes and applications to spatially homogeneous branching processes. **82i:60095**
Glötzl, Erhard Gibbsian description of point processes. **82j:60092**
Grandell, J. Approximate waiting times in thinned point processes. (Lithuanian and Russian summaries) **82i:60096**
Grigelionis, Bronius A martingale approach to the statistical problems of point processes. **82g:60063**
Haezendonck, J. (*with* De Vylder, Fl.) A comparison criterion for explosions in point processes. **82a:60072**
See also **De Vylder, Fl., 82b:60055**
Hanisch, Karl-Heinz On classes of random sets and point process models. (German and Russian summaries) **82f:60124**
Ignatov, Z. Point processes generated by order statistics and their applications. **82h:60101**
Isham, Valerie Dependent thinning of point processes. **82c:60094**
See also **Cox, David Roxbee, 82j:60091**
Itmi, Mhamed Processus ponctuels marqués stochastiques. Représentation des martingales et filtration naturelle quasi-continue à gauche. **82i:60097**
Jolivet, E. Central limit theorem and convergence of empirical processes for stationary point processes. **82m:60059**
Lawrance, A. J. The rate and variance functions arising from the interaction of two stationary point processes. **82j:60093**
Some autoregressive models for point processes. **82h:60102**
Liese, Friedrich Überlagerung verdünnter und schwach abhängiger Punktprozesse. **82a:60073**
Milne, R. K. *See* **Brown, Thomas Craig; et al., 82k:60114**
Nahapet'jan, B. S. *See* **Ambarcumjan, R. V., 82c:60093**
Pons, Odile Test sur la loi d'un processus ponctuel. (English summary) **82c:60095**
Rasson, J.-P. Some geometrical aspects of the entropy of line-processes. **82j:60094**
Rolski, Tomasz ★Stationary random processes associated with point processes. **82i:60098**
Silverman, B. W. *See* **Brown, Thomas Craig; et al., 82k:60114**
Tweedie, R. L. *See* **Athreya, K. B.; et al., 82m:60057**
Vere-Jones, D. *See* **Athreya, K. B.; et al., 82m:60057**
Wasan, M. T. *See* **Burnett, R. T., (*See* 81m:62005)**
Zeephongsekul, Panlop Laplace functional approach to point processes occurring in a traffic model. **82k:60115**

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Al-Hussaini, Ata (*with* Elliott, Robert J.) Itô and Girsanov formulae for two parameter processes. **(82j:60096)**
(Ambarcumjan, R. V.) *See* **Combinatory principles in stochastic geometry, (82k:60027)**
(Bártfai, P.) *See* **Point processes and queueing problems, (82f:60006)**
Biggins, J. D. Spatial spread in branching processes. **(82e:60137)**
Limiting point processes in the branching random walk. **(82h:60154)**
Cocozza, C. (*with* Galves, A.; Roussignol, M.) Étude de deux évolutions markoviennes de processus ponctuels sur $\mathbb{R}$ par des méthodes d'association. (English summary) **(82d:60190)**
Cowan, Richard Properties of ergodic random mosaic processes. **(82e:60019)**
Deheuvels, Paul The strong approximation of extremal processes. **(82k:60065)**
Dudley, Richard M. *See* **Durst, Mark, (82j:60051)**
Durst, Mark (*with* Dudley, Richard M.) Empirical processes, Vapnik-Chervonenkis classes and Poisson processes. **(82j:60051)**
Elliott, Robert J. *See* **Al-Hussaini, Ata, (82j:60096)**
Fava, N. A. (*with* Santaló, Luis Antonio) Random processes of manifolds in $\mathbb{R}^n$. **(82c:60021)**
Funk, Gerald M. *See* **Saunders, Roy; et al., (82k:60215)**
Galves, A. *See* **Cocozza, C.; et al., (82d:60190)**
Gaver, Donald P. (*with* Lewis, P. A. W.) First-order autoregressive gamma sequences and point processes. **(82e:62137)**
Greenwood, Priscilla (*with* Pitman, Jim W.) Construction of local time and Poisson point processes from nested arrays. **(82a:60117)**
Hall, Peter On the distribution of random lines. **(82i:60030)**
Jacob, Pierre Représentations convergentes des intégrales stochastiques. **(82f:60126)**
Lois des grands nombres pour une suite de mesures aléatoires: étude de la vitesse de convergence. **(82g:60045)**
Jaibi, M. R. Évolution d'une file d'attente avec priorité. (English summary) **(82d:60183)**
Jansen, Uwe (*with* König, Dieter; Nawrotzki, Kurt) A criterion of insensitivity for a class of queueing systems with random marked point processes. (German and Russian summaries) **(82e:60152)**
Janson, Svante (*with* Kallenberg, Olav) Maximizing the intersection density of fibre processes. **(82m:60017)**
Kabanov, Ju. M. (*with* Lipcer, R. Š.; Širjaev, A. N.) Some limit theorems for simple point processes (a martingale approach). **(82a:60027)**
Kallenberg, Olav *See* **Janson, Svante, (82m:60017)**
König, Dieter (*with* Rykov, V. V.; Schmidt, Volker) Stationary queueing systems with dependencies. (Russian) **(82k:60191)**
See also **Jansen, Uwe; et al., (82e:60152)**
Koschitzki, S. Some stereological problems for random discs in $\mathbb{R}^3$. (German and Russian summaries) **(82f:60034)**
Krickeberg, Klaus Statistical problems on point processes. **(82e:62156)**
Kruglov, V. M. Convergence of sums of independent flows of customers to a Poisson flow. (Russian) **(82e:60155)**
Kryscio, Richard J. *See* **Saunders, Roy; et al., (82k:60215)**
Lange, Kenneth (*with* Risch, N.) Comments of lack of interference in the four strand model of crossing over. **(82m:92048)**
Lewis, P. A. W. *See* **Gaver, Donald P., (82e:62137)**
Lin'kov, Ju. M. Asymptotic behavior of the probability of error of the likelihood ratio test in the discrimination of point processes with continuous compensators. (Russian) **(82k:62117)**
Lipcer, R. Š. *See* **Kabanov, Ju. M.; et al., (82a:60027)**
Lotwick, H. W. (*with* Silverman, B. W.) Convergence of spatial birth-and-death processes. **(82h:60159)**
Mecke, Joseph Palm methods for stationary random mosaics. (*See* **82k:60027**)
(*with* Nagel, Werner) Stationäre räumliche Faserprozesse und ihre Schnittzahlrosen. (English and Russian summaries) **(82j:60016)**
(*with* Stoyan, Dietrich) Stereological problems for spherical particles. **(82f:60037)**
Stereological formulas for manifold processes. **(82m:60020)**
Mišura, Ju. S. Two-parameter semimartingales and point random fields. (Russian. English summary) **(82j:60084)**
Morimoto, Hiroaki The dual space of the space BMO for a stochastic point process. **(82f:60112)**
Nagel, Werner *See* **Mecke, Joseph, (82j:60016)**
Nawrotzki, Kurt *See* **Jansen, Uwe; et al., (82e:60152)**
Oganjan, V. K. Combinatorial principles in stochastic geometry of random processes of segments. (Russian) (*See* **82k:60027**)

Piterbarg, V. I. Poisson limit theorem for large excursions of a Gaussian sequence. (Russian) **(82j:60063)**

Pitman, Jim W. *See* **Greenwood, Priscilla, (82a:60117)**

Rauchenschwandtner, Berthold ★Gibbsprozesse und Papangeloukerne. (German) [Gibbsian processes and Papangelou kernels] **(82f:60232)**
(*with* Wakolbinger, Anton) Some aspects of the Papangelou kernel. **(82k:60213)**

Risch, N. *See* **Lange, Kenneth, (82m:92048)**

Roussignol, M. Un processus de saut sur **R** à une infinité de particules. (English summary) **(82i:60181)**
See also **Cocozza, C.; et al., (82d:60190)**

Rykov, V. V. *See* **König, Dieter; et al., (82k:60191)**

Santaló, Luis Antonio *See* **Fava, N. A., (82c:60021)**

Saunders, Roy (*with* Kryscio, Richard J.; Funk, Gerald M.) Poisson limits for a hard-core clustering model. **(82k:60215)**

Schmidt, Volker *See* **König, Dieter; et al., (82k:60191)**

Silverman, B. W. *See* **Lotwick, H. W., (82k:60159)**

Širjaev, A. N. *See* **Kabanov, Ju. M.; et al., (82a:60027)**

Stoyan, Dietrich Two stochastic models for spatial patterns of geological origin. (German and Russian summaries) **(82g:60024)**
See also **Stoyan, Helga, (82e:60021)** *and* **Mecke, Joseph, (82f:60037)**

Stoyan, Helga (*with* Stoyan, Dietrich) On some partial orderings of random closed sets. (German and Russian summaries) **(82e:60021)**

Sukiasjan, G. S. Processes of chords on lines intersecting random circle fields on a plane. (Russian. Armenian summary) **(82f:60039)**

Sznitman, Alain-Sol Perturbations ponctuelles d'évolutions: construction d'espaces stationnaires. (English summary) **(82d:60066)**

(Tomkó, József) *See* **Point processes and queueing problems, (82f:60006)**

Wakolbinger, Anton *See* **Rauchenschwandtner, Berthold, (82k:60213)**

Watanabe, Shinzo Excursion point process of diffusion and stochastic integral. **(82i:60130)**

Wieczorek, Elżbieta On the mean value of the double stochastic birth and death process. **(82g:60112)**

Zähle, M. Ergodic properties of general Palm measures. **(82f:28024)**

Zeephongsekul, Panlop Almost total information convergence of order α for a sequence of point processes. **(82k:94011)**

Colloquia Mathematica Societatis János Bolyai ★Point processes and queueing problems. **(82f:60006)**

Colloquium:
Point Processes and Queueing Problems ★Point processes and queueing problems. **(82f:60006)**

Combinatory principles in stochastic geometry ★Комбинаторные принципы в стохастической геометрии. (Russian) [Combinatory principles in stochastic geometry] **(82k:60027)**

Keszthely ★Point processes and queueing problems. **(82f:60006)**

Point processes and queueing problems ★Point processes and queueing problems. **(82f:60006)**

Stochastic geometry ★Комбинаторные принципы в стохастической геометрии. (Russian) [Combinatory principles in stochastic geometry] **(82k:60027)**

60G57 Random measures

Kalinauskaitė, N. Strong γ-variation and random measures with values in $\mathbf{R}^c$. (Russian. Lithuanian and English summaries) **82d:60094**

Nualart Rodón, David Decomposition of independent valued stochastic measures. **82a:60074**

Ramasubramanian, S. An elementary proof of Girsanov's formula. **82j:60095**

secondary classifications:

Čerkašin, E. V. The structure of fundamental G-algebras, generated by a process with a finite number of jumps. (Russian) **(82m:60037)**

Grigelionis, Bronius A martingale approach to the statistical problems of point processes. **(82g:60063)**

Jondral, Friedrich Some remarks about generalized functionals of complex white noise. **(82e:60131)**

Krickeberg, Klaus Statistical problems on point processes. **(82e:62156)**

Papangelou, F. On the convergence of interacting particle systems to the Poisson process. **(82d:60193)**

Plikusas, A. Some properties of multiple Itô integrals. (Russian. Lithuanian and English summaries) **(82j:60099)**

Rolski, Tomasz On random discrete distributions. (Polish summary) **(82f:60014)**

60G60 Random fields

Adler, Robert J. A Hölder condition for the local time of the Brownian sheet. **82b:60056**
★The geometry of random fields. **82h:60103**

Bentkus, V. (*with* Surgailis, D.) Some classes of self-similar random fields. (Russian. Lithuanian and English summaries) **82m:60060**

Ciesielski, Z. Properties of realizations of random fields. **82g:60064**

Dmitrovskiĭ, V. A. Boundedness condition and estimation of the maximum distribution of random fields on arbitrary sets. (Russian) **82e:60085**
A nonuniform condition for the continuity of stochastic processes. (Russian. English summary) **82g:60065**

Dobrušin, R. L. (*with* Kel'bert, M. Ja.) Local additive functionals of generalized Gaussian fields. (Russian) **82e:60086**
Gaussian random fields—Gibbsian point of view. **82d:60095**
Automodel generalized random fields and their renorm group. **82h:60104**

Fröhlich, Jürg The pure phases (harmonic functions) of generalized processes or: Mathematical physics of phase transitions and symmetry breaking. **82c:60096**

Holley, Richard A. (*with* Stroock, Daniel W.) The D.L.R. conditions for translation invariant Gaussian measures on $\mathcal{S}'(\mathbf{R}^d)$. **82g:60066**

Hryniewicz, Z. Numerical generation methods of homogeneous and nonhomogeneous two-dimensional Gaussian random fields. **82g:60067**

Ivanoff, B. Gail The branching random field. **82d:60096**

Ivanov, O. V. (*with* Leonenko, M. M.) On the invariance principle for estimating the correlation function of a uniform isotropic random field. (Russian) **82k:60116**

Kel'bert, M. Ja. *See* **Dobrušin, R. L., 82e:60086**

Leonenko, M. M. *See* **Ivanov, O. V., 82k:60116**

Major, Péter ★Multiple Wiener-Itô integrals. **82i:60099**

Maljarenko, A. A. A class of multidimensional random fields of Markov type. (Russian. English summary) **82k:60117**

Mišura, Ju. S. Convergence of certain functionals of integral type in the uniform topology. (Russian) **82d:60097**

Molčanov, S. A. (*with* Stepanov, A. K.) Excursions of a Gaussian field over a high level. (Russian) **82d:60098**

Nahapet'jan, B. S. The central limit theorem for random fields with mixing property. **82d:60099**

Nualart Rodón, David (*with* Sanz, M.) Random Gaussian Markov fields. **82e:60087**

Radčenko, O. M. The relation between the mean length of the level line of a homogeneous random field and the mean number of its intersections by an arbitrary line. (Ukrainian. English and Russian summaries) **82m:60061**

Rahimov, G. M. On the estimate of the correlation function of a homogeneous and isotropic random field on the sphere. I. (Russian. English summary) **82k:60118**

Ravaska, Timo On helical and Δ-helical surfaces in Hilbert space. **82g:60068**

Rozanov, Ju. A. Investigation of the Markov property of random fields. (Russian) **82i:60100**

Sanz, M. *See* **Nualart Rodón, David, 82e:60087**

Savenko, S. M. Continuity of random fields on a compact subset of a Banach space. (Russian) **82d:60100**

Schack, B. Random fields as fixed points of stochastic operators. (Russian) **82i:60101**

Sinjavs'kiĭ, V. F. A lower bound for the modulus of continuity of homogeneous Gaussian random fields. (Russian) **82d:60101**

Stepanov, A. K. *See* **Molčanov, S. A., 82d:60098**

Stroock, Daniel W. *See* **Holley, Richard A., 82g:60066**

Surgailis, D. *See* **Bentkus, V., 82m:60060**

Szczepankiewicz, Eugeniusz Some economic applications of isotropic and quasi-isotropic random fields. (Polish. English summary) **82i:60102**

Vovk, S. P. Some questions of spectral theory of generalized random fields. (Russian. English summary) **82k:60119**

secondary classifications:

Adler, Robert J. Correction to: "The uniform dimension of the level sets of a Brownian sheet" [Ann. Probab. **6** (1978), no. 3, 509–515; MR 80a:60102]. **(82h:60148)**

Bakry, D. Théorèmes de section et de projection pour les processus à deux indices. **(82e:60057)**

(Bártfai, P.) *See* **Point processes and queueing problems, (82f:60006)**

Bleher, P. M. ϵ-expansion for automodel random fields. **(82g:60131)**

Bromley, C. (*with* Kallianpur, Gopinath) Gaussian random fields. **(82e:60062)**

Cassandro, M. (*with* Olivieri, E.) Renormalization group and analyticity in one dimension: a proof of Dobrushin's theorem. **(82k:82005)**

Cuzick, Jack The Hausdorff dimension of the level sets of a Gaussian vector field. **(82e:60063)**

Dašjan, Ju. R. The local limit theorem for a class of marked point fields and the problem of equivalence of ensembles in quantum statistical mechanics. **(82j:82007)**

De Dominicis, Rodolfo (*with* Mascolo, Elvira) Convergence of sums of random variables that are dependent in blocks. (Italian. English summary) **(82j:60034)**

Deo, Chandrakant M. On Wiener random fields in a Banach space. **(82i:60009)**
(*with* Wong, H. Ship-Fah) On Berry-Esseen approximation and a functional LIL for a class of dependent random fields. **(82e:60054)**

Ekhaguere, G. O. S. A characterization of Markovian homogeneous multicomponent Gaussian fields. **(82h:81084)**

Enss, Volker Scaling limits of generalized random processes. **(82g:81078)**

Freed, Karl F. Polymers as self-avoiding walks. **(82j:60123)**

Funk, Gerald M. *See* **Kryscio, Richard J.; et al., (82g:60136)**

Glötzl, Erhard Gibbsian description of point processes. **(82j:60092)**

Gončar, M. S. (*with* Mackiv, R. S.) Uniform random non-Gaussian fields and their application to the quantum field theory. (Russian) **(82h:81059)**

Hajek, Bruce (*with* Wong, Eugene) Representation and transformation of two-parameter martingales under a change of measure. **(82h:60095)**

Isham, Valerie An introduction to spatial point processes and Markov random fields. (French summary) **(82i:60177)**

Ivanov, O. V. Convergence of distributions of functionals of measurable random fields. (Russian) **(82b:60018)**

Jacob, Pierre Représentations convergentes des intégrales stochastiques. **(82f:60126)**

Jadrenko, M. I. *See* **Leonenko, M. M., (82a:60030)** *and* **(82a:60043)**

Kallianpur, Gopinath *See* **Bromley, C., (82e:60062)**

Katkauskaitė, Aldona On the properties of the conditional mathematical expectation and variance of the Wiener field. (Russian. Lithuanian and English summaries) **(82d:60155)**

Kindermann, Ross P. (*with* Snell, J. Laurie) ★Markov random fields and their applications. **(82j:60183)**

Kl'osov, O. I. The Hájek-Rényi inequality for random fields and the strong law of large numbers. (Russian. English summary) **(82i:60050)**
The strong law of large numbers for homogeneous random fields. (Russian. English summary) **(82j:60046)**

Korolev, V. Ju. Convergence of moments of random sums of independent random variables. (Russian) **(82j:60039)**

Kryscio, Richard J. (*with* Saunders, Roy; Funk, Gerald M.) Normal approximations for binary lattice systems. **(82g:60136)**

Kurčenko, O. O. A limit theorem for vector-valued random fields. (Russian. English summary) **(82e:60050)**

Leonenko, M. M. Convergence of probability measures induced by homogeneous random fields. (Russian. English summary) **(82a:60013)**
(*with* Jadrenko, M. Ĭ.) Limit theorems for homogeneous and isotropic random fields. (Russian. English summary) **(82a:60030)**
(*with* Jadrenko, M. Ĭ.) The invariance principle for some classes of random fields. (Russian) **(82a:60043)**

Liu, K. C. Spatial stochastic systems theory and its application to fields and waves in random moving media. I. General theory. **(82m:93080)**

Ljal'ko, S. B. Asymptotic properties of pseudo-optimal estimates for the mean of homogeneous random fields. (Russian. English summary) **(82e:62139)**

Mackiv, R. S. *See* **Gončar, M. S., (82b:81059)**

Malevič, T. L. (*with* Tošov, N.) Bounds for the maximum of a homogeneous Gaussian field. (Russian. English summary) **(82i:60065)**

Malyšev, V. A. (*with* Petrova, E. N.) Duality transformations of Gibbs random fields. (Russian) **(82j:82012)**

Manija, M. G. Absolute continuity and singularity of probability distributions of random fields. (Russian) **(82f:60087)**

Mascolo, Elvira *See* **De Dominicis, Rodolfo, (82j:60034)**

Mazziotto, Gérald (*with* Szpirglas, Jacques) Équations du filtrage pour un processus de Poisson mélangé à deux indices. (English summary) **(82h:60073)**

Millet, Annie Convergence and regularity of strong submartingales. **(82k:60111)**

Mišura, Ju. S. Two-parameter semimartingales and point random fields. (Russian. English summary) **(82j:60084)**
Properties of quadratic variation of two-parameter strong martingales. (Russian. English summary) **(82m:60054)**

Namsrai, H. Nonlocal stochastic model for the free scalar field theory. **(82j:81024)**

Neaderhouser, Carla C. An almost sure invariance principle for partial sums associated with a random field. **(82h:60059)**

Novikov, A. A. Recursive interpolation of partially observable random fields. **(82b:60042)**

Nualart Rodón, David Martingales à variation indépendante du chemin. [Martingales with path independent variation] **(82k:60112)**
(*with* Sanz, M.) Changing time for two-parameter strong martingales. (French summary) **(82i:60081)**
Weak convergence to the law of two-parameter continuous processes. **(82d:60060)**

Olivieri, E. *See* **Cassandro, M., (82k:82005)**

Petrova, E. N. *See* **Malyšev, V. A., (82j:82012)**

Pogosjan, S. K. Large deviations for Gibbs random fields. (Russian) **(82j:82015)**

Ponomarenko, O. Ĭ. Representations of moving averages for generalized homogeneous random fields on locally compact abelian groups. (Russian. English summary) **(82k:60020)**
Estimates of the mean of generalized random fields. (Russian. English summary) **(82m:62154)**

Révész, Pál How small are the increments of a Wiener sheet? **(82i:60133)**

Rozanov, Ju. A. Some problems of the linear theory of random functions. (Russian. English summary) **(82h:60121)**

Sanz, M. *See* **Nualart Rodón, David (82i:60081)**

Saunders, Roy *See* **Kryscio, Richard J.; et al., (82g:60136)**

Ševljakov, A. Ju. Clark's formula for two-parameter Wiener processes. (Russian) **(82d:60158)**

Sinaĭ, Ja. G. ★Теория фазовых переходов. (Russian) [Theory of phase transitions] **(82m:82020)**

Sinjavs'kiĭ, V. F. Conditions for the discontinuity of sample functions of homogeneous Gaussian random fields. (Russian. English summary) **(82i:60069)**

Snell, J. Laurie *See* **Kindermann, Ross P., (82j:60183)**

Szpirglas, Jacques *See* **Mazziotto, Gérald, (82h:60073)**

(Tomkó, József) *See* **Point processes and queueing problems, (82f:60006)**

Tošov, N. *See* **Malevič, T. L., (82i:60065)**

Wong, Eugene *See* **Hajek, Bruce, (82h:60095)**

Wong, H. Ship-Fah *See* **Deo, Chandrakant M., (82e:60054)**

Xu, Ye Ji Linear prediction theory of a homogeneous random field with discrete parameters. (Chinese. English summary) **(82f:60086)**

Colloquia Mathematica Societatis János Bolyai ★Point processes and queueing problems. **(82f:60006)**

Colloquium:
Point Processes and Queueing Problems ★Point processes and queueing problems. **(82f:60006)**

Keszthely ★Point processes and queueing problems. **(82f:60006)**

Point processes and queueing problems ★Point processes and queueing problems. **(82f:60006)**

60G99 None of the above, but in this section

Bellomo, Nicola (*with* Pistone, G.) Time-evolution of the probability density under the action of a deterministic dynamical system. **82d:60102**

Boccotti, Paolo The indeterminacy of the probability of intervals between zeros of random time functions. (Italian. English summary) **82g:60069**

Brückner, Damian (*with* Podhorodyński, Marian; Skalmierski, Bogdan) The characteristic functional and some statistical characteristics of a stochastic process (sequential formulation). (Polish. Russian and English summaries) **82a:60075**

Cenuşă, Gheorghe (*with* Săcuiu, Ion) Sequences of random variables almost periodical in probability. (French and Russian summaries) **82b:60057**
(*with* Săcuiu, Ion) On some stochastic approximations for random functions. (French summary) **82b:60058**
A Weierstrass-type theorem for vector random functions. **82c:60097**
Properties of the mean of a random function almost periodic in probability. The associated random Fourier series. **82k:60120b**
(*with* Săcuiu, Ion) Some properties of random functions almost periodic in probability. **82k:60120a**
Ergodic properties of random functions, almost periodic in probability. (Romanian. English summary) **82i:60103**
Properties of the mean and covariance of a stochastic process, almost periodic in probability. (Romanian. English summary) **82i:60104**

Čoban, M. M. (*with* Markov, Ju. B.) On the theory of random functions and stochastic problems. (Russian) **82g:60070**

Markov, Ju. B. *See* **Čoban, M. M., 82g:60070**

Pistone, G. *See* **Bellomo, Nicola, 82d:60102**

Podhorodyński, Marian *See* **Brückner, Damian; et al., 82a:60075**

Pratihari, D. *See* **Samal, G., 82d:60103**

Precupanu, Anca-Maria Some properties of the almost periodic functions in probability. **82e:60088**

Săcuiu, Ion *See* **Cenuşă, Gheorghe, 82b:60057; 82b:60058** *and* **82k:60120a**

Samal, G. (*with* Pratihari, D.) Number of real zeros of a random algebraic polynomial. **82d:60103**

Skalmierski, Bogdan Identification of random motion and problem of crossings. (French and Russian summaries) **82a:60076**
See also **Brückner, Damian; et al., 82a:60075**

secondary classifications:

Bucan, G. P. (*with* Bucan, S. P.) Inhomogeneous stochastic semigroups. (Russian) **(82m:60087)**

Bucan, S. P. The Lévy expansion for nonhomogeneous multiplicative stochastic semigroups. (Russian) **(82m:60088)**
See also **Bucan, G. P., (82m:60087)**

Chernick, Michael R. A limit theorem for the maximum of autoregressive processes with uniform marginal distributions. **(82d:60034)**

Erber, T. (*with* Rynne, T. M.; Sklar, A.) Quantum mechanics and mixing transformations. **(82k:81018)**

Fichtner, Karl-Heinz (*with* Kerstan, Johannes) Asymptotische Invarianz bei Halbgruppen stochastischer Kerne. I. **(82d:60011a)**
See also **Kerstan, Johannes, (82d:60011b)**

Gaveau, Bernard (*with* Trauber, Philip) Mesures et représentations non locales pour les groupes de Lie d'applications. (English summary) **(82m:22017)**

Honda, Ikuji On the rate of the central limit theorem for a class of linear processes. **(82f:60056)**
Abstract Bennett's formula for a class of nonstationary linear stochastic processes. **(82g:60036)**

Kalašnikov, V. V. Estimates of the stability of innovations processes. **(82b:60127)**

Kerstan, Johannes (*with* Fichtner, Karl-Heinz) Asymptotische Invarianz bei Halbgruppen stochastischer Kerne. II. **(82d:60011b)**
See also **Fichtner, Karl-Heinz, (82d:60011a)**

Knowles, Ian W. (*with* Meidan, R.) On nonlinear nuclear operators. **(82i:47103)**

de Korvin, A. (*with* Roberts, Charles E., Jr.) Convergence theorems for some scalar valued integrals when the measure is Nemytskii. **(82f:47073)**

Meidan, R. *See* **Knowles, Ian W., (82i:47103)**

Nawrotzki, Kurt Stationäre Verteilungen endlicher offener Systeme. **(82i:60120)**

Nguyen, Xuan-Xanh Ergodic theorems for subadditive spatial processes. **(82c:60056)**

Roberts, Charles E., Jr. *See* **de Korvin, A., (82f:47073)**

Rynne, T. M. *See* **Erber, T.; et al., (82k:81018)**

Sklar, A. *See* **Erber, T.; et al., (82k:81018)**

Thall, Peter F. Cluster shock models. **(82d:60175)**

Trauber, Philip *See* **Gaveau, Bernard, (82m:22017)**

Zhao, Zhong Xin Quasilinear transformation in abstract Wiener spaces. **(82g:60011)**

60Hxx Stochastic analysis [See also 58G32.]

secondary classifications:

(Grigelionis, Bronius) *See* **Stochastic differential systems, (82b:60002)**

Kallianpur, Gopinath ★Stochastic filtering theory. **(82f:60089)**

Nisio, Makiko ★Lectures on stochastic control theory. **(82j:93058)**

(Williams, David) *See* **Stochastic integrals, (82f:60009)**

Durham ★Stochastic integrals. **(82f:60009)**

IFIP Conference:
Stochastic Differential Systems ★Stochastic differential systems. **(82b:60002)**

Stochastic differential systems ★Stochastic differential systems. **(82b:60002)**

Stochastic integrals ★Stochastic integrals. **(82f:60009)**

Symposium:
Stochastic Integrals ★Stochastic integrals. **(82f:60009)**

Vilnius ★Stochastic differential systems. **(82b:60002)**

60H05 Stochastic integrals

Al-Hussaini, Ata (*with* Elliott, Robert J.) Itô and Girsanov formulae for two parameter processes. **82j:60096**
(*with* Elliott, Robert J.) Stochastic calculus for a two-parameter jump process. **82k:60121**

Allain, Marie-France Formule de Itô pour des processus indexés par une partie de $\mathbb{R}^d$. (English summary) [Itô's formula for processes indexed by a part of $\mathbb{R}^d$] **82m:60062**

Bichteler, Klaus Stochastic integrators. **82k:60122**
The stochastic integral as a vector measure. **82d:60104**
Stochastic integration and L^p-theory of semimartingales. **82g:60071**

Brennan, Michael D. Riemann-Stieltjes quasimartingale integration. **82c:60098**

Dellacherie, Claude Un survol de la théorie de l'intégrale stochastique. **82d:60105**
Un survol de la théorie de l'intégrale stochastique. **82f:60125**

Dozzi, Markus On the decomposition and integration of two-parameter stochastic processes. **82k:60123**

Elliott, Robert J. Stochastic integration and discontinuous martingales. **82j:60097**
See also **Al-Hussaini, Ata. 82j:60096** *and* **82k:60121**

Ančev, O. B. *See* **Stojanov, Ĭordan M., 82f:60128**

Engelbert, H. J. (*with* Heß, Juliane) Stochastic integrals of continuous local martingales. I. **82c:60099**

Föllmer, Hans Calcul d'Itô sans probabilités. **82j:60098**

Gal'čuk, L. I. A change of variables formula. (Russian) **82c:60100**

Gundy, Richard F. (*with* Varopoulos, Nicholas Th.) Les transformations de Riesz et les intégrales stochastiques. (English summary) **82e:60089**

Hajek, Bruce (*with* Wong, Eugene) Set-parametered martingales and multiple stochastic integration. **82h:60105**

Heß, Juliane *See* **Engelbert, H. J., 82c:60099**

Hitsuda, Masuyuki (*with* Watanabe, Hisao) On stochastic integrals with respect to an infinite number of Brownian motions and its applications. **82a:60077**

Hürzeler, Harry Intégrateurs stochastiques à deux indices. (English summary) **82g:60072**

Jacob, Pierre Représentations convergentes des intégrales stochastiques. **82f:60126**

Jacod, Jean Intégrales stochastiques par rapport à une semimartingale vectorielle et changements de filtration. **82g:60073**

Janovič, L. A. On quadrature formulas for stochastic integrals of nonrandom functions. (Russian. English summary) **82h:60059**

Jeulin, Thierry ★Semi-martingales et grossissement d'une filtration. (French) [Semimartingales and enlargement of a filtration] **82h:60106**

Konecny, Franz Über das Itô-Belated Integral von E. J. McShane. (English summary) **82a:60078**

Kotelenez, P. Local behaviour of Hilbert space valued stochastic integrals and the continuity of mild solutions of stochastic evolution equations. **82h:60107**

Kulinič, G. L. (*with* Le Thien Hyong) On the construction and limit behavior of a multiple stochastic integral of a diffusion process. (Russian. English summary) **82h:60108**

Le Thien Hyong The limit behavior of the distribution of multiple stochastic integrals. (Russian. English summary) **82h:60109**

See also **Kulinič, G. L., 82h:60108**

Lin'kov, Ju. M. Asymptotic normality of stochastic integrals and statistics of discontinuous processes. (Russian. English summary) **82f:60127**

Métivier, Michel (*with* Pellaumail, Jean) ★Stochastic integration. **82b:60060**

Meyer, Paul-André Introduction au calcul différentiel stochastique. **82d:60106**

Introduction to stochastic differential calculus. **82g:60074**

Michel, Dominique Formule de Stokes stochastique. (English summary) **82e:60090**

Mišura, Ju. S. Limit theorems for stochastic Schärf-Stieltjes integrals. (Russian) **82h:60110**

Pellaumail, Jean *See* **Métivier, Michel, 82b:60060**

Plikusas, A. Some properties of multiple Itô integrals. (Russian. Lithuanian and English summaries) **82j:60099**

Ševljakov, A. Ju. Itô's formula for an extended stochastic integral. (Russian. English summary) **82g:60075**

Sjögren, Peter Convergence of Riemann sums for stochastic integrals. **82g:60076**

Spiliotis, Jean Sur les intégrales stochastiques de L. C. Young. **82g:60077**

Sur les travaux de N. V. Krylov en théorie de l'intégrale stochastique. **82m:60063**

Stojanov, Ĭordan M. (*with* Ančev, O. B.) Construction and properties of a class of stochastic integrals. **82f:60128**

Üstünel, Ali Süleyman Formule de Feynman-Kac stochastique. (English summary) **82f:60129**

Varopoulos, Nicholas Th. *See* **Gundy, Richard F., 82e:60089**

Vila Miranda, M. A. Definition of an H-valued stochastic integral with respect to a Poisson random measure. (Spanish) **82a:60079**

Wang, Jia Gang The uniform integrability of a class of exponential martingales. (Chinese summary) **82k:60124**

Watanabe, Hisao *See* **Hitsuda, Masuyuki, 82a:60077**

Wong, Eugene *See* **Hajek, Bruce, 82h:60105**

Yoeurp, Chantha Sur la dérivation stochastique au sens de M. H. A. Davis. **82j:60100**

Yor, Marc Quelques interactions entre mesures vectorielles et intégrales stochastiques. **82b:60061**

En cherchant une définition naturelle des intégrales stochastiques optionnelles. **82e:60091**

(Young, L. C.) *See* **Spiliotis, Jean, 82g:60077**

Zakai, Moshe Some remarks on integration with respect to weak martingales. **82k:60125**

secondary classifications:

Auerhan, J. (*with* Lépingle, D.) Les filtrations de certaines martingales du mouvement brownien dans $\mathbf{R}^n$. II. **(82k:60104)**

Baširov, A. Ė. A stochastic differential equation in Hilbert space. (Russian. Azerbaijani and English summaries) **(82d:60107)**

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Lions, Pierre-Louis (*with* Menaldi, José-Luis; Sznitman, Alain-Sol) Construction de processus de diffusion réfléchis par pénalisation du domaine. (English summary) **(82f:60172)**
See also **Bensoussan, Alain, (82m:93100)**
Ludwig, Donald An unusual free boundary problem from the theory of optimal harvesting. **(82m:92062)**
Menaldi, José-Luis *See* **Lions, Pierre-Louis; et al., (82f:60172)**
Métivier, Michel (*with* Pellaumail, Jean) ★Stochastic integration. **(82b:60060)**
Meyer, Paul-André Introduction to stochastic differential calculus. **(82g:60074)**
Mikulevičius, R. On the existence and uniqueness of the solutions of the martingale problem on a manifold with boundary. (Russian. Lithuanian and English summaries) **(82k:60105)**
Mišura, Ju. S. Solution of the general martingale problem for two-parameter functions. (Ukrainian. English and Russian summaries) **(82m:60055)**
Morita, Terumitsu On the interpretation of multiplicative white noise. **(82c:82016)**
Nakazawa, Hiroshi Sample structure of forced Burgers turbulence. **(82i:76048)**
Nelson, B. L. *See* **DeWitt-Morette, C.; et al., (82m:81028)**
Nisio, Makiko On stochastic optimal controls and envelope of Markovian semigroups. **(82k:49024)**
Notohara, Morihiro (*with* Shiga, Tokuzo) Convergence to genetically uniform state in stepping stone models of population genetics. **(82a:92031)**
Ogura, Yukio *See* **Kesten, Harry, (82f:60182)**
Orey, Steven *See* **Sethna, P. R., (82f:93083)**
Ôshima, Yôichi On stochastic differential equations characterizing some singular diffusion processes. **(82f:60173)**
Pellaumail, Jean *See* **Métivier, Michel, (82b:60060)**
Pinsky, Mark A. Three problems in stochastic Riemannian geometry. **(82m:60093)**
Homogenization in stochastic differential geometry. **(82e:58103)**
Pistone, G. *See* **Bellomo, Nicola, (82d:60102)**
Pugačev, V. S. Finite-dimensional distributions of the processes, defined by stochastic differential equations, and the extrapolation of such processes. (Russian) **(82a:60055)**
The finite-dimensional distributions of a random process determined by a stochastic differential equation and their application to control problems. (Russian summary) **(82g:93043)**
Rylova, T. N. *See* **Borisenko, A. D., (82h:60151)**
Sammelman, G. S. *See* **DeWitt-Morette, C.; et al., (82m:81028)**
Schmidt, W. *See* **Engelbert, H. J., (82k:60155)**
Schwartz, Laurent Les semi-martingales formelles. **(82i:60093)**
Seshadri, Venkita *See* **Lakatos-Lindenberg, Katja; et al., (82i:70028)**
Sethi, Suresh P. (*with* Lehoczky, John P.) A comparison of the Itô and Stratonovich formulations of problems in finance. **(82k:90028)**
Sethna, P. R. (*with* Orey, Steven) Some asymptotic results for a class of stochastic systems with parametric excitations. (French and German summaries) **(82f:93083)**
Shepp, L. A. *See* **Harrison, J. Michael, (82j:60144)**
Shiga, Tokuzo *See* **Notohara, Morihiro, (82a:92031)**
Shuler, Kurt E. *See* **Lakatos-Lindenberg, Katja; et al., (82i:70028)**
Spiliotis, Jean Sur les travaux de N. V. Krylov en théorie de l'intégrale stochastique. **(82m:60063)**
Suzuki, Masuo Fluctuation and relaxation in stochastic systems. **(82j:82019)**
Sznitman, Alain-Sol *See* **Lions, Pierre-Louis; et al., (82f:60172)**
Tanaka, Hiroshi (*with* Hitsuda, Masuyuki) Central limit theorem for a simple diffusion model of interacting particles. **(82h:82028)**
(Thrall, Robert M.) *See* **Mathematical frontiers of the social and policy sciences, (82c:92005a)**
Tsuchiya, Masaaki Smooth and monotonic approximation to potentials and Itô's formula for diffusion processes on $\mathbf{R}^d$. **(82m:60094)**
Tudor, Constantin Remarks on the martingale problem in the two-dimensional time parameter. **(82j:60076)**
Üstünel, Ali Süleyman Formule de Feynman-Kac stochastique. (English summary) **(82f:60129)**
Vetrov, L. G. Linearization of stochastic differential equations of optimal nonlinear filtering. (Russian. English summary) **(82d:60079)**
Vila Miranda, M. A. Definition of an H-valued stochastic integral with respect to a

Poisson random measure. (Spanish) **(82a:60079)**

Watanabe, Shinzo Construction of diffusion processes with Wentzell's boundary conditions by means of Poisson point processes of Brownian excursions. **(82a:60119)**

West, Bruce J. *See* **Lakatos-Lindenberg, Katja; et al., (82i:70028)**

Yasue, Kunio The Onsager-Machlup Lagrangian and the optimal control for diffusion processes. **(82f:82034)**

Žaurov, Ju. V. A limit theorem for a parabolic equation with a random coefficient. (Russian) **(82f:35191)**

Mathematical frontiers of the social and policy sciences ★Mathematical frontiers of the social and policy sciences. **(82c:92005a)**

Social sciences ★Mathematical frontiers of the social and policy sciences. **(82c:92005a)**

Statistical mechanics ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**

Stochastic processes and statistical mechanics in open systems ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**

Symposium:

Stochastic Processes and Statistical Mechanics in Open Systems ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**

60H15 Stochastic partial differential equations [See also 35R60.]

Babčuk, V. G. Solution of a class of systems of linear stochastic diffusion equations with constant coefficients. (Russian) **82f:60144**

Bismut, Jean-Michel Martingales, the Malliavin calculus and hypoellipticity under general Hörmander's conditions. **82k:60134**

Bobrik, R. V. Random functions satisfying a second-order linear partial differential equation of hyperbolic type. (Russian) **82a:60090**

Chow, Pao Liu On linear stochastic pdes and their applications. **82h:60120**

Curtain, Ruth F. Stability of stochastic partial differential equations. **82j:60109**

Dawson, Donald A. Invariant sets for spatially homogeneous measure processes. **82j:60110**

El'borai, Mahmoud M. Generalized random processes and Cauchy's problem for some partial differential systems. **82i:60111**

Gihman, Ĭ. Ī. Existence of weak solutions of a class of hyperbolic systems that contain two-parameter white noise. (Russian) **82a:60091**

The first initial-boundary value problem for a stochastic hyperbolic equation. (Russian) **82i:60112**

Solution of the initial-boundary value problem for a stochastic equation of hyperbolic type by the Fourier method. (Russian) **82i:60113**

Gihman, Il. I. A mixed problem for a stochastic equation of hyperbolic type. (Russian. English summary) **82b:60068**

A mixed problem for a stochastic parabolic differential equation. (Russian) **82c:60108**

Grecksch, Wilfried (*with* Schild, Wilma) Über eine realisierungsweise partielle Differentialgleichung. **82j:60111**

Johnstone, Iain ★A probabilistic study of linear elliptic-parabolic equations of second order. **82i:60114**

Jurinskiĭ, V. V. On a Dirichlet problem with random coefficients. **82i:60115**

Le Thien Hyong Equation for the second-order moment of the solution of a stochastic partial differential equation. (Ukrainian. English and Russian summaries) **82b:60069**

Lukačer, B. Ja. Asymptotic behavior of solutions of equations of hyperbolic type with random right-hand side. (Russian) **82i:60116**

Mahno, S. Ja. Limit theorems for stochastic equations with partial derivatives. **82e:60098**

An averaging principle for stochastic partial differential equations. (Russian) **82b:60070**

Papanicolaou, George C. Remarks on limit theorems for partial differential equations with random coefficients. **82e:60099**

Repnikova, N. M. A boundary value problem with random perturbations. (Russian) **82b:60071**

Rozanov, Ju. A. Some problems of the linear theory of random functions. (Russian. English summary) **82h:60121**

Schild, Wilma *See* **Grecksch, Wilfried, 82j:60111**

secondary classifications:

Bergman, L. A. (*with* Heinrich, J. C.) Solution of the Pontriagin-Vitt equation for the moments of time to first passage of the randomly accelerated particle by the finite element method. **(82c:65085)**

Bismut, Jean-Michel (*with* Michel, Dominique) Structure des diffusions conditionnelles et calcul des variations. (English summary) **(82f:60170)**

Cahlon, Baruch The heat equation with stochastic nonlinear boundary conditions. **(82e:35082)**

Capiński, Marek Statistical solutions of the heat equation. **(82i:35171)**

Chow, Pao Liu Some random boundary problems in two dimensions. **(82c:35083)**

Eršov, M. P. Weak compactness of continuous semimartingales. (Russian. English summary) **(82f:60114)**

Gončarenko, V. M. Random oscillations of distributed linear systems. (Russian. English summary) **(82m:35147)**

Heinrich, J. C. *See* **Bergman, L. A., (82c:65085)**

Ibidapo-Obe, O. Some contributions to stability of a class of stochastic continuous systems. **(82g:93048)**

Ivanov, M. F. (*with* Švec, V. F.) A stochastic differential equation method for calculating the kinetics of a plasma with collision. (Russian) **(82f:82048)**

(Kuhta, T. K.) *See* **Questions of modeling complex systems, (82i:93088a)**

(Mar'janovič, T. P.) *See* **Questions of modeling complex systems, (82i:93088a)**

Michel, Dominique *See* **Bismut, Jean-Michel, (82f:60170)**

Miyahara, Yoshio Infinite-dimensional Langevin equation and Fokker-Planck equation. **(82e:60127)**

Nedoma, Jiří On stochastic differential equations in geophysical potential problems. (*See* **82g:31001**)

Nishioka, Kunio The degenerate Neumann problem and degenerate diffusions with Venttsel's boundary conditions. **(82c:60139)**

Ogura, Yukio A remark on a branching Brownian motion on a Riemannian manifold with negative curvature. **(82d:60157)**

Pardoux, Étienne Backward and forward stochastic partial differential equations associated with a nonlinear filtering problem. **(82h:60074)**

Ponomarenko, L. L. A problem of distinguishing and identifying objects described by stochastic equations of hyperbolic type. (Russian) **(82i:93088b)**

Russek, Andrzej Gaussian n-Markovian processes and stochastic boundary value problems. **(82i:60068)**

Safarjan, R. G. Some boundary value problems with a small parameter for degenerate diffusion processes and corresponding differential equations. (Russian. Armenian and English summaries) **(82d:60146)**

Saičev, A. I. Statistical analysis of linear stochastic boundary value problems by the method of reduction to a Cauchy problem. **(82j:82049)**

Skvorcov, G. E. (*with* Timohov, L. A.) Defining relations of a turbulent fluid. (Russian) **(82k:76039)**

Sohadze, G. A. Measures generated by solutions of nonlinear equations of elliptic type with Gaussian perturbations. (Russian) **(82a:60057)**

Švec, V. F. *See* **Ivanov, M. F., (82f:82048)**

Timohov, L. A. *See* **Skvorcov, G. E., (82k:76039)**

Uvarov, O. V. A way of calculating the characteristic functional of solutions of stochastic partial differential equations. (Russian) **(82h:35100)**

Walsh, John B. A stochastic model of neural response. **(82f:92020)**

Willemsen, Jorge F. Functional methods in random classical field theory. **(82g:82036)**

Žaurov, Ju. V. A limit theorem for equations of elliptic type with a random coefficient. (Russian) **(82a:35098)**

Questions of modeling complex systems ★Вопросы моделирования сложных систем. (Russian) [Questions of modeling complex systems] **(82i:93088a)**

Systems theory ★Вопросы моделирования сложных систем. (Russian) [Questions of modeling complex systems] **(82i:93088a)**

60H20 Stochastic integral equations

Berger, Marc A. (*with* Mizel, Victor J.) Volterra equations with Itô integrals. I. **82e:60100a**

(*with* Mizel, Victor J.) Volterra equations with Itô integrals. II. **82e:60100b**

Bilopol's'ka, Ja. Ī. A system of quasilinear integro-differential equations and the Markov processes associated with them. (Russian) **82e:60109**

Carenko, T. I. Stochastic Darboux equations that depend on a numerical parameter. (Russian) **82c:60110**

Chaleyat-Maurel, M. (*with* El Karoui, Nicole; Marchal, B.) Réflexion discontinue et systèmes stochastiques. (English summary) **82k:60135**

Doss, Halim Connections between stochastic and ordinary integral equations. **82j:60112**

El Karoui, Nicole *See* **Chaleyat-Maurel, M.; et al., 82k:60135**

Gihman, Ī. Ī. A generalization of the backward Kolmogorov equation. (Russian) **82k:60136**

Glonti, O. A. A representation for a process governed by a system of stochastic equations of filtration type. **82g:60087**

Kravec, T. N. Limit theorems for a class of stochastic integral equations. (Russian) **82c:60111**

Existence of a solution of a stochastic integral equation of Volterra type. (Russian) **82a:60092**

Existence and uniqueness of the solution of a stochastic integral equation of Volterra type. (Russian) **82c:60112**

Lax, Melvin D. Obtaining approximate solutions of random differential equations by means of the method of moments. **82a:60093**

Marchal, B. *See* **Chaleyat-Maurel, M.; et al., 82k:60135**

Métivier, Michel Stochastic equations driven by random measures and semimartingales. **82m:60073**

Mizel, Victor J. *See* **Berger, Marc A., 82e:60100**

Platen, Eckhard ★An approximation method for a class of Itô processes with jump component. **82a:60094**

Approximation of Itô integral equations. **82i:60117**

Weak convergence of approximations of Itô integral equations. (German and Russian summaries) **82f:60145**

Rutkowski, Marek Some properties of stochastic integral equation of a mixed Volterra-Stieltjes and Itô type. **82b:60072**

Stochastic integral equations with a reflecting barrier. **82b:60073**

Ševljakov, A. Ju. Stochastic integral equations. (Russian. English summary) **82f:60146**

Thakur, L. B. On a stochastic integral equation of the Volterra-Fredholm type. **82b:60074**

Turo, Jan On a nonlinear random functional integral equation in two independent variables. (Serbo-Croatian summary) **82k:60137**

Veretennikov, A. Ju. Strong solutions and explicit formulas for solutions of stochastic integral equations. (Russian) **82f:60147**

secondary classifications:

Adomian, George (*with* Sibul, Leon H.) Symmetrized solutions for nonlinear stochastic differential equations. **(82k:60111)**

Bharucha-Reid, A. T. *See* **Christensen, Mark J., (82j:65094a)**

Bichteler, Klaus Stochastic integration and L^p-theory of semimartingales. **(82g:60071)**

Christensen, Mark J. (*with* Bharucha-Reid, A. T.) Numerical solution of random integral equations. I. Fredholm equations of the second kind. **(82j:65094a)**

Glonti, O. A. Stochastic differential equation of the optimal nonlinear filtering of the conditional Gaussian process. **(82k:60093)**

Hernández Lerma, Onésimo Exit probabilities for a class of perturbed degenerate systems. **(82f:60171)**

Isakova, T. I. A limit theorem for diffusion processes. (Russian) **82j:60145)**

Kulinič, G. L. On the asymptotic behavior of the solution of dimensional stochastic diffusion equation. **(82g:60080)**

Kusano, Shinako An application of stochastic approximation to fixed points in the Hilbert space. (Japanese) **82m:62191**)
Stochastic approximation on Hilbert space and its application. **82j:60114**)
Pachpatte, B. G. On random nonlinear contractions and Itô-Doob type stochastic integral equations. **82g:60088**)
Protter, Philip An extension of Kazamaki's results on BMO differentials. **82f:60113**)
Ševljakov, A. Ju. Itô's formula for an extended stochastic integral. (Russian. English summary) **82g:60075**)
Sibul, Leon H. *See* **Adomian, George**, **82h:60111**)
Wódkiewicz, K. Matrix-continued fraction solutions of some stochastic equations with random telegraph noise. **82i:81179**)

60H25 Random operators and equations

Adomian, George On the modeling and analysis of nonlinear stochastic systems. **82a:60095**
Bécus, Georges A. Successive approximations solution of a class of random equations. **82a:60096**
Bharucha-Reid, A. T. *See* **Chandrasekharan, P. S.**, **82b:60075**
Bocşan, Gh. A general random fixed point theorem and applications to random equations. **82m:60074**
Bondarev, B. V. An iterative method for solving some equations with random observations on their parameters. (Russian) **82c:60113**
Car'kova, V. N. (*with* Eglite, D. A.) Exponential stability of solutions of linear difference equations with random coefficients in a Hilbert space. (Russian) **82h:60122**
Caughey, T. K. *See* **Ma, Fai**, **82i:60119**
Chandrasekharan, P. S. (*with* Bharucha-Reid, A. T.) Approximate solution of fixed point equations for random operators. **82b:60075**
Chang, Shih Sen Random fixed point theorem in probabilistic analysis. **82c:60114**
Clark, Dean S. A stochastic difference equation. **82f:60148**
Čoban, M. M. (*with* Kirillov, P. V.; Markov, Ju. B.) Principles of solution of stochastic problems. (Russian) **82h:60126b**
See also **Markov, Ju. B.; et al.**, **82h:60126a**
Dáng Dình Áng (*with* Dinh Ngoc Thanh) A probabilistic analogue of the Bohnenblust-Karlin fixed point theorem. **82m:60075**
Dedik, P. E. (*with* Šubin, M. A.) Elliptic operators in spaces of homogeneous random fields and the stabilization of solutions to parabolic equations with random coefficients. (Russian) **82h:60123**
Dinh Ngoc Thanh *See* **Dáng Dình Áng**, **82m:60075**
Eglite, D. A. *See* **Car'kova, V. N.**, **82h:60122**
Girko, V. L. Stochastic spectral equations. **82e:60101**
Distribution of eigenvalues and eigenvectors of unitary random matrices. (Russian. English summary) **82m:60076**
Gol'dšeid, I. Ja. Structure of the spectrum of the Schrödinger random difference operator. (Russian) **82k:60138**
Hadžić, Olga A random fixed point theorem for multivalued mappings of Ćirić's type. **82h:60124**
(*with* Stojaković, Mila) Two random fixed point theorems. (Serbo-Croatian summary) **82f:60149**
Huang, Hai *See* **Kushner, Harold J.**, **82i:60118**
Jasinskiĭ, V. K. Stability of the almost surely trivial solution of stochastic functional-differential equations. (Russian) **82h:60076**
Joshi, Mohan Nonlinear random equations with *P*-compact operators in Banach spaces. **82c:60115**
Kannan, Rangachary Stochastic approximation and nonlinear operator equations. **82b:60077**
Random correspondences and nonlinear equations. **82h:60125**
Keepler, Manuel On random evolutions induced by countable state space Markov chains. **82j:60113**
Kirillov, P. V. *See* **Markov, Ju. B.; et al.**, **82h:60126a** *and* **Čoban, M. M.; et al.**, **82h:60126b**
Kravvaritis, Dimitrios Nonlinear random operators of monotone type in Banach spaces. **82c:60116**
Kusano, Shinako Stochastic approximation in Banach space and its application to solution searching of random functional equations. **82a:60097**
Stochastic approximation on Hilbert space and its application. **82j:60114**
Kushner, Harold J. (*with* Huang, Hai) On the weak convergence of a sequence of general stochastic difference equations to a diffusion. **82i:60118**
Ma, Fai (*with* Caughey, T. K.) Moment stability of linear stochastic difference systems. **82i:60119**
Markov, Ju. B. (*with* Čoban, M. M.; Kirillov, P. V.) On the theory of random functions. (Russian) **82h:60126a**
See also **Čoban, M. M.; et al.**, **82h:60126b**
Pachpatte, B. G. On random nonlinear contractions and Itô-Doob type stochastic integral equations. **82g:60088**
Padgett, W. J. Approximate solution of random nonlinear equations by random contractors. **82c:60117**
Peil, H. Stability of some stochastic difference equations with piecewise constant coefficients. **82m:60077**
Phan Văn Chu'o'ng Versions aléatoires du théorème de point fixe de Kakutani-Ky-Fan. (English summary) **82f:60150**
Radu, Viorel On an approximation method for random operator equations. **82j:60115**
Reznikova, A. Ja. Fluctuations of the spectrum of one-dimensional random operators. (Russian) **82d:60114**
Richter, Gerhard Bemerkungen zu linearen Gleichungssystemen mit zufälligen Koeffizienten. **82c:60118**
Skorohod, A. V. Linear stochastic operator equations. (Russian) **82j:60116**
Stojaković, Mila *See* **Hadžić, Olga**, **82f:60149**
Šubin, M. A. *See* **Dedik, P. E.**, **82h:60123**
Tran Van Nhung On the boundedness of the spectrum of some linear systems with stochastic perturbations. **82g:60089**
Turo, Jan On the existence and uniqueness of solution of some stochastic functional integral equations in two independent variables. **82j:60117**
Yu, Zhong Ming Stability of nonlinear stochastic difference equations. (Chinese. English summary) **82j:60118**
Ždanok, T. A. Measurable solutions of a random operator equation and its adjoint. (Russian) **82b:60078**
Random linear operators with a finite-dimensional kernel. (Russian) **82b:60079**
On the invertibility of a random linear operator. (Russian. English summary) **82k:60139**

secondary classifications:

Burschka, M. A. (*with* Titulaer, U. M.) The kinetic boundary layer for the Fokker-Planck equation with absorbing boundary. **82j:82071**)
Caughey, T. K. *See* **Ma, Fai**, **82k:93076**)
Chen, Shao Zhong (*with* Liu, Zuo Shu) Random fixed-point theorems in abstract spaces. (Chinese. English summary) **82m:54047**)
Chiou, K. L. *See* **Chow, Pao Liu**, **82e:34061**)
Chow, Pao Liu (*with* Chiou, K. L.) Asymptotic stability of randomly perturbed linear periodic systems. **82e:34061**)
Čoban, M. M. (*with* Markov, Ju. B.) On the theory of random functions and stochastic problems. (Russian) **82g:60070**)
Constantin, Gh. (*with* Radu, Viorel) On probabilistic δ-continuity and proximate fixed points for multivalued functions in PM-spaces. **82k:54067**)
Dawson, Donald A. An infinite geostochastic system. **82e:60112**)
Dedik, P. E. (*with* Šubin, M. A.) Random pseudodifferential operators and stabilization of the solutions of parabolic equations with random coefficients. (Russian) **82f:35190**)
Girko, V. L. Normalized spectral functions of random matrices. (Russian. English summary) **82d:60036**)
Graham, Robert Forward Hopf bifurcation with multiplicative Gaussian white noise: exact Fokker-Planck solution. **82b:82012**)
Kifer, Yuri The spectrum of small random perturbations of dynamical systems. **82e:60125**)
Kudžma, R. (*with* Mackevičius, V.) Theory of stochastic processes. (Russian. Lithuanian and English summaries) **82d:60063**)
Kusano, Shinako An application of stochastic approximation to fixed points in the Hilbert space. (Japanese) **82m:62191**)
Liu, Zuo Shu *See* **Chen, Shao Zhong**, **82m:54047**)
Ma, Fai (*with* Caughey, T. K.) On the stability of stochastic difference systems. (German summary) **82k:93076**)
Mackevičius, V. *See* **Kudžma, R.**, **82d:60063**)
Markov, Ju. B. *See* **Čoban, M. M.**, **82g:60070**)
Meleško, V. I. The solution of ill-posed stochastic algebraic equations. (Russian) **82d:65035**)
Phan Văn Chu'o'ng Random versions of Kakutani-Ky Fan's fixed point theorem. **82k:47077**)
Pratihari, D. *See* **Samal, G.**, **82d:60103**)
Radu, Viorel *See* **Constantin, Gh.**, **82k:54067**)
Samal, G. (*with* Pratihari, D.) Number of real zeros of a random algebraic polynomial. **82d:60103**)
Šubin, M. A. *See* **Dedik, P. E.**, **82f:35190**)
Teichmann, Jiri On the deterministic and stochastic stability of dissipative magnetohydrodynamic equilibria. (French summary) **82b:76069**)
Titulaer, U. M. *See* **Burschka, M. A.**, **82j:82071**)

60H99 None of the above, but in this section

Bossavit, Alain (*with* Planchard, J.) Simplicité de la valeur propre 1 pour les opérateurs intégraux à noyau positif stochastique irréductible. (English summary) **82b:60080**
Bucan, G. P. The condition of boundedness of variation for stochastic categories. (Russian) **82b:60081**
Figotin, A. L. Exponential growth of solutions of a second-order difference equation with random coefficients. (Russian) **82a:60098**
Germani, Alfredo (*with* Sen, Prodip) White noise solutions for a class of distributed feedback systems with multiplicative noise. **82j:60119**
Lebedev, V. A. On the existence of a solution of the stochastic equation with respect to a martingale and a random measure. **82e:60102**
Planchard, J. *See* **Bossavit, Alain**, **82b:60080**
Sen, Prodip *See* **Germani, Alfredo**, **82j:60119**

secondary classifications:

Bagchi, Arunabha Generalized measure and likelihood functional in a continuous linear stochastic dynamical system. **82i:60073**)
Bensoussan, Alain (*with* Lions, Jacques-Louis; Papanicolaou, George C.) ★Asymptotic analysis for periodic structures. **82h:35001**)
Bucan, G. P. The mixed product of nonhomogeneous stochastic semigroups. (Russian. English summary) **82b:60094**)
Cambanis, Stamatis (*with* Miller, Grady) Linear problems in *p*th order and stable processes. **82j:60070**)
Capiński, Marek (*with* Szafirski, Bolesław) Statistical solutions of differential equations in turbulent heat transfer. (Russian summary) **82m:80001**)
Caughey, T. K. *See* **Ma, Fai**, **82k:70030**)
Friedman, Avner Erratum: "The asymptotic behavior of the first real eigenvalue of a second order elliptic operator with a small parameter in the highest derivatives" [Indiana Univ. Math. J. **22** (1972/73), 1005–1015; MR **47** #9088]. **82b:35118**)
Platone Garroni, Maria Giovanna (*with* Vivaldi, Maria Agostina) Bilateral inequalities and implicit unilateral systems of the nonvariational type. **82f:49006**)
Guess, Harry A. An invariance principle for solutions to stochastic difference equations. **82h:60087**)
Jacenko, V. A. *See* **Semenov, V. N.**, **82c:93019**)

Kolodiĭ, A. M. Optimal control with lag of linear stochastic systems containing an unknown parameter. (Russian) **(82c:49017)**
Lim, S. C. Euclidean electromagnetic field as Itô's random current: a simple proof of Markov property. **(82f:81049)**
Lions, Jacques-Louis *See* **Bensoussan, Alain; et al., (82h:35001)**
Ma, Fai (*with* Caughey, T. K.) Stability of stochastic difference systems. **(82k:70030)**
Miller, Grady *See* **Cambanis, Stamatis, (82j:60070)**
Nguen Dong An' Some methods for integrating Fokker-Planck-Kolmogorov equations in the theory of random oscillations. (Russian) **(82f:34077)**
Papanicolaou, George C. *See* **Bensoussan, Alain; et al., (82h:35001)**
Petrov, B. N. (*with* Ulanov, G. M.; Ul'janov, S. V.) Dynamical systems with random and fuzzy structure. (Russian) **(82h:93063)**
Prajneshu A stochastic prey-predator model with time delay. **(82f:92037)**
Rutkowski, Marek Stochastic integral equations with a reflecting barrier. **(82h:60073)**
Semenov, V. N. (*with* Jacenko, V. A.) An application of path integrals. (Russian) **(82c:93019)**
Spanos, P.-T. D. A method for analysis of nonlinear vibrations caused by modulated random excitation. (French and German summaries) **(82e:70023)**
Srinivasan, S. K. (*with* Udayabaskaran, S.) Stochastic perturbation of a stable deterministic plasma system. **(82c:82082)**
Szafirski, Bolesław *See* **Capiński, Marek, (82m:80001)**
Udayabaskaran, S. *See* **Srinivasan, S. K., (82c:82082)**
Ulanov, G. M. *See* **Petrov, B. N.; et al., (82h:93063)**
Ul'janov, S. V. *See* **Petrov, B. N.; et al., (82h:93063)**
Vivaldi, Maria Agostina *See* **Garroni, Maria Giovanna, (82f:49006)**

60Jxx Markov processes

Foguel, Shaul R. ★Selected topics in the study of Markov operators. **82h:60127**
Hernández Castaños, Diego Bricio ★Caminatas aleatorias y movimiento browniano. (Spanish) [Random walks and Brownian motion] **82g:60090**

secondary classifications:

Kurtz, Thomas G. ★Approximation of population processes. **(82j:60160)**
Stoica, Lucretiu ★Local operators and Markov processes. **(82a:31020)**
(Williams, David) *See* **Stochastic integrals, (82f:60009)**
Durham ★Stochastic integrals. **(82f:60009)**
Stochastic integrals ★Stochastic integrals. **(82f:60009)**
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Stochastic Integrals ★Stochastic integrals. **(82f:60009)**

60J05 Markov processes with discrete parameter

Berres, Manfred Recurrent Markov processes and Harris processes. **82k:60140**
Chernick, Michael R. On strong mixing and Leadbetter's *D* condition. **82j:60120**
Cvintarnaja, N. D. Markov processes with a partially ordered set of time parameters. (Russian. English summary) **82a:60099**
Federgruen, Awi The rate of convergence for backwards products of a convergent sequence of finite Markov matrices. **82e:60103**
Grigorenko, L. A. Symmetric events in some Markov chains. (Russian) **82b:60082**
Lesigne, Emmanuel Existence et unicité d'une probabilité invariante pour des translations aléatoires de $\mathbf{R}^m$. **82d:60115**
Mălăncioiu, Odetta On discrete Markov processes. (Romanian. English summary) **82h:60128**
Nawrotzki, Kurt ★Diskrete offene Systeme. (German) [Discrete open systems] **82f:60151**
Stationäre Verteilungen endlicher offener Systeme. **82i:60120**
Picci, Giorgio On the internal structure of finite-state stochastic processes. **82d:60116**
Ramakrishnan, S. Finitely additive Markov chains. **82i:60121**
Royer, Gilles Croissance exponentielle de produits markoviens de matrices aléatoires. (English summary) **82d:60117**
Samarova, S. S. Asymptotic behavior of the maximum sojourn time in a fixed state of an ergodic Markov chain. (Russian) **82d:60118**
Tavares, L. Valadares An exponential Markovian stationary process. **82e:60104a**
Letter to the editor: "An exponential Markovian stationary process". **82e:60104b**
Wolf, D. Approximation des invarianten Wahrscheinlichkeitsmaßes eines Markoffschen Kerns bezüglich schwacher Konvergenz. **82m:60078**
Yang, Xiang Qun *W* transformation and strong limit for denumerable Markov processes. **82b:60083**

secondary classifications:

Andrijanov, V. A. (*with* Kogan, I. A.; Umnov, G. A.) Optimal control of a partially observable discrete Markov process. **(82k:93077)**
Baranov, V. V. Adaptive control of Markov processes. (Russian) **(82b:93049)**
Berg, Lothar Über Gaußsche Markov-Prozesse als Wachstumsmodelle. (English summary) [Gaussian Markov processes as growth models] **(82m:60041)**
Berman, Abraham (*with* Plemmons, Robert J.) ★Nonnegative matrices in the mathematical sciences. **(82b:15013)**
Carnal, Étienne Indépendance conditionnelle permutable. (English summary) **(82c:60006)**
von Chossy, R. (*with* Oppel, U. G.) Ein Invarianzeigenschaft für Startverteilungen einer Klasse stochastischer Prozesse. (English summary) **(82j:60058)**
Courbage, Maurice (*with* Misra, Baidyanath) On the equivalence between Bernoulli dynamical systems and stochastic Markov processes. **(82c:82008)**
Edwards, David G. Large sample tests for stationarity and reversibility in finite Markov chains. **(82e:62136)**
Hill, Bruce M. (*with* Lane, David A.; Sudderth, William D.) A strong law for some generalized urn processes. **(82b:60029)**
Keilson, Julian On the unimodality of passage time densities in birth-death processes. **(82f:60185)**
Kogan, I. A. *See* **Andrijanov, V. A.; et al., (82k:93077)**
Kunderová, Pavla On a mean reward from a Markov replacement process with only one isolated class of recurrent states. (Czech and Russian summaries) **(82i:60145)**
Lane, David A. *See* **Hill, Bruce M.; et al., (82b:60029)**
Misra, Baidyanath *See* **Courbage, Maurice, (82c:82008)**
Noebels, R. A note on stochastic order of probability measures and an application to Markov processes. (German summary) **(82j:60008)**
Oppel, U. G. *See* **von Chossy, R., (82j:60058)**
Plemmons, Robert J. *See* **Berman, Abraham, (82b:15013)**
Sudderth, William D. *See* **Hill, Bruce M.; et al., (82b:60029)**
Tweedie, R. L. Perturbations of countable Markov chains and processes. **(82a:60104)**
Umnov, G. A. *See* **Andrijanov, V. A.; et al., (82k:93077)**
Yan, Jia An Propriété de représentation prévisible pour les semimartingales spéciales. **(82e:60083)**

60J10 Markov chains with discrete parameter

Aldous, David J. On $\bar{d}$-convergence of Markov chains. **82h:60129**
Aliev, T. M. Distribution of an unbounded Markov chain with continuous time. (Russian. Azerbaijani and English summaries) **82i:60122**
Alimov, D. A class of homogeneous Markov chains with reflection at infinity. (Russian) **82c:60119**
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Aničkin, S. A. (*with* Kalašnikov, V. V.) Approximation of Markov chains. (Russian) **82h:60130**
Anisimov, V. V. (*with* Černjak, A. I.) Asymptotic behavior of *i*-chains of a finite Markov chain. (Russian. English summary) **82h:60131**
Arndt, K. The properties of boundary functionals of a random walk on a finite Markov chain. (Russian. English and German summaries) **82f:60152**
Azlarov, T. A. (*with* Faĭziev, A. A.) Statistical properties of functions from estimates of determining characteristics of finite Markov chains. (Russian) **82d:60119**
Berg, Sven On snowball sampling, random mappings and related problems. **82h:60085**
Bonsdorff, Heikki Characterizations of uniform recurrence for general Markov chains. **82h:60086**
Bourgin, Richard D. (*with* Cogburn, Robert) On determining absorption probabilities for Markov chains in random environments. **82h:60132**
Černjak, A. I. *See* **Anisimov, V. V., 82h:60131**
Chiang, Chin Long An algebraic treatment of finite Markov chains. **82c:60120**
Chosid, Leo (*with* Isaac, Richard) Correction to: "On the range of recurrent Markov chains" [Ann. Probab. **6** (1978), no. 4, 680–687; MR **57** #14146]. **82c:60121**
Cogburn, Robert *See* **Bourgin, Richard D., 82h:60132**
Cohn, Harry On a paper by Doeblin on nonhomogeneous Markov chains. **82h:60133**
Cox, J. Theodore The age functional for Markov chains. **82m:60079**
De Dominicis, Rodolfo Some limit theorems for Markov chains not necessarily fulfilling Doeblin's condition. (Italian summary) **82e:60105**
(Doeblin, W.) *See* **Cohn, Harry, 82h:60133**
Ežov, I. I. (*with* Kadankov, V. F.) Conditional Markov chains with a finite number of states. (Russian) **82d:60120**
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Filonov, Ju. P. The limit distribution of a centered functional defined on a transient Markov chain. (Russian. English summary) **82f:60153**
Gagliardo, Emilio (*with* Kottman, Clifford) Self-adjusting stochastic processes. **82k:60141**
Gerber, Hans U. (*with* Li, Shuo-Yen Robert) The occurrence of sequence patterns in repeated experiments and hitting times in a Markov chain. **82f:60154**
Giroux, Gaston Une extension d'un résultat de Pitman en théorie des chaînes de Markov et en théorie du renouvellement. **82k:60142**
Glick, I. I. A note on runs. **82f:60155**
Gusak, D. V. Distribution of the limit value of a jump for compound Poisson processes on a Markov chain. (Russian) **82c:60122**
Hu, Di He Harmonic functions of some stochastic matrices. (Chinese. English summary) **82g:60091**
Iosifescu, Marius ★Finite Markov processes and their applications. **82c:60123**
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Konovalov, A. G. A local limit theorem on the limit transfer to a diffusion process. (Russian. English summary) **82k:60143**
Kottman, Clifford *See* **Gagliardo, Emilio, 82k:60141**
Langrock, P. (*with* Jahn, W.) ★Einführung in die Theorie der Markovschen Ketten und ihre Anwendungen. (German) [Introduction to the theory of Markov chains and its applications] **82a:60100**
Letac, G. (*with* Takács, Lajos) Random walks on a dodecahedron. **82d:60121**
Li, Shuo-Yen Robert *See* **Gerber, Hans U., 82f:60154**
Lindqvist, Bo Ergodic Markov chains with finite convergence time. **82h:60134**
MacQueen, J. Circuit processes. **82j:60121**
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Markova, L. N. Investigation of the distribution of a special Markov chain. (Russian. English summary) **82a:60101**
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Nummelin, E. The convergence of sums of transition probabilities of a positive recurrent Markov chain. **82j:60122**
Qian, Min *See* **Qian, Min Ping, 82a:60102**
Qian, Min Ping (*with* Qian, Min) The decomposition into a detailed balance part and a circulation part of an irreversible stationary Markov chain. **82a:60102**
Rosberg, Zvi A note on the ergodicity of Markov chains. **82c:60124**
Rothblum, Uriel G. Sensitive growth analysis of multiplicative systems. I. The dynamic approach. **82f:60156**

Sato, Ken-iti Convergence of a class of Markov chains to multidimensional degenerate diffusion processes. **82c:60125**

Seneta, E. Computing the stationary distribution for infinite Markov chains. **82a:60103**

Shoaf, James M. *See* **Meyer, Carl D., Jr., 82d:60122**

Takács, Lajos *See* **Letac, G., 82d:60121**

Teodorescu, Dan Nonhomogeneous Markov chains with desired properties—the nearest Markovian model. **82h:60087**

Tweedie, R. L. Perturbations of countable Markov chains and processes. **82a:60104**

Vladimirescu, Ion Formulas for the computation of the moments of the number of occurrences of a transient state and of the absorption time in a homogeneous finite Markov chain. (Romanian. English summary) **82h:60135**

Ždanok, A. I. Invariant finitely additive measures and limit behavior of Markov processes with discrete time. (Russian. English summary) **82g:60092**

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Arnold, Barry C. (*with* Groeneveld, Richard A.) On excess life in certain renewal processes. **(82e:60143)**

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Bolthausen, E. The Berry-Esseen theorem for functionals of discrete Markov chains. **(82a:60024)**

Bruss, F. Thomas A counterpart of the Borel-Cantelli lemma. **(82f:60071)**

Capuzzo Dolcetta, Italo (*with* Lorenzani, Massimo; Spizzichino, Fabio) A degenerate complementarity system and applications to the optimal stopping of Markov chains. (Italian summary) **(82h:60077)**

Car'kova, V. N. (*with* Èglite, D. A.) Exponential stability of solutions of linear difference equations with random coefficients in a Hilbert space. (Russian) **(82h:60122)**

Cohn, Harry On the convergence of stochastically monotone sequences of random variables and some applications. **(82h:60038)**

Cuculescu, I. A recurrence definition of certain homogeneous Markov processes. Applications to queueing processes. (Romanian. English summary) **(82f:60167)**

Cullmann, G. ★Les chaînes de Markov multiples. (French) [Multiple Markov chains] **(82h:90092)**

Davies, G. S. Maintainable regions in a Markov manpower model. **(82i:60144)**

De Dominicis, Rodolfo An invariance principle for a Markov chain of random elements. (Italian) **(82j:60033a)**
Asymptotic normality of non-φ-mixing Markov chains. (Italian) **(82j:60033b)**

Èglite, D. A. *See* **Car'kova, V. N., (82h:60122)**

Fearn, Dean H. A fixed-point property for Galton-Watson processes with generation dependence. **(82e:60140)**

Föllmer, Hans Tail structure of Markov chains on infinite product spaces. **(82c:60176)**

Gilevič, Ja. Asymptotic analysis of Markov systems with "rapid servicing". (Russian. English summary) **(82m:60117)**

Goodman, Myron F. *See* **Thiele, Everett; et al., (82f:82032)**

Groeneveld, Richard A. *See* **Arnold, Barry C., (82e:60143)**

Gurevič, B. M. Stationary random sequences of maximal entropy. **(82d:28019)**

Gyires, Béla Constant regression of quadratic statistics on the sum of random variables defined on a Markov chain. **(82k:62034)**

Harrison, D. K. Nonnormal Galois theories and some resulting structures. **(82m:13005)**

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Haussmann, U. G. Erratum: "On the adjoint process for optimal control of diffusion processes" [SIAM J. Control Optim. **19** (1981), no. 2, 221–243]. **(82i:49012b)**

Heinrich, L. Integrale Grenzwertsätze für Wahrscheinlichkeiten großer Abweichungen im Falle homogen Markovsch verbundener Zufallsgrößen. (Lithuanian and Russian summaries) **(82d:60049)**

Hsu, Chieh Su A generalized theory of cell-to-cell mapping for nonlinear dynamical systems. **(82k:58056)**

Ismail, Mourad E. H. (*with* Theodorescu, Radu) Asymptotic and explicit formulae for a non-Markovian model with linear transition rule. (German and French summaries) **(82d:60194)**

Kaplan, E. I. (*with* Sil'vestrov, D. S.) General limit theorems for sums of controlled random variables with an arbitrary phase space for the controlling sequence. (Russian. Lithuanian and English summaries) **(82h:60041)**

Krylov, N. V. ★Controlled diffusion processes. **(82a:60062)**

Lewis, Edwin R. ★Network models in population biology. **(82g:92034)**

Lorenzani, Massimo *See* **Capuzzo Dolcetta, Italo; et al., (82h:60077)**

Mandelbaum, A. (*with* Vanderbei, R. J.) Optimal stopping and supermartingales over partially ordered sets. **(82k:60098)**

Neuts, Marcel F. ★Matrix-geometric solutions in stochastic models. **(82j:60177)**

Ney, Peter A refinement of the coupling method in renewal theory. **(82d:60169)**

Niemi, Seppo The central limit theorem for Markov chains with the simultaneous total variation convergence of the chain. **(82h:60046)**

Pickard, David K. Unilateral Markov fields. **(82e:60164)**

Rogers, L. C. G. *See* **Barlow, Martin; et al., (82h:60089a)**

Schwarz, Štefan Infinite products of doubly stochastic matrices. (Slovak and Russian summaries) **(82i:15023)**

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Spizzichino, Fabio *See* **Capuzzo Dolcetta, Italo; et al., (82h:60077)**

Stolov, E. L. A class of generators of pseudo-Markov chains. (Russian) **(82j:68096)**

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Theodorescu, Radu *See* **Ismail, Mourad E. H., (82d:60194)**

Thiele, Everett (*with* Stone, James; Goodman, Myron F.) A class of master equations that exhibit a generalized form of canonical invariance and other "displacement" invariances. **(82f:82032)**

Vanderbei, R. J. *See* **Mandelbaum, A., (82k:60098)**

Varaiya, Pravin *See* **Walrand, Jean, (82d:60188)**

Walrand, Jean (*with* Varaiya, Pravin) Interconnections of Markov chains and quasireversible queuing networks. **(82d:60188)**

Walsh, John B. Well-timed diffusion approximations. **(82f:60174)**

Wang, Pei Zhuang Dissipative structure theory and Markov chains. (Chinese. English summary) **(82m:82024)**

Williams, David *See* **Barlow, Martin; et al., (82h:60089a)**

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Arndt, K. Asymptotic properties of the distribution of the supremum of a random walk on a Markov chain. (Russian. German summary) **82d:60123**

Berbee, Henry Recurrence and transience for random walks with stationary increments. **82m:60081**

Bratiičuk, N. S. Limit theorems for random walks with two boundaries. (Russian) **82c:60126**

Chung, Kai Lai (*with* Lindvall, Torgny) On recurrence of a random walk in the plane. **82c:60127**

Fal', A. M. Some limit theorems for the simplest Markov random walk. (Russian) **82k:60144**

Freed, Karl F. Polymers as self-avoiding walks. **82j:60123**

Gafurov, M. U. On the first passage time of a multidimensional random walk beyond expanding sets. (Russian) **82d:60124**
(*with* Slastnikov, A. D.) On the distribution of the time of last exit, the excess and the number of crossings of a random walk over a curvilinear boundary. (Russian) **82d:60125**
(*with* Rotar', V. I.) On the exit of a random walk through a curvilinear boundary. I. (Russian) **82k:60145a**
(*with* Rotar', V. I.) On the exit of a random walk through a curvilinear boundary. II. (Russian) **82k:60145b**

Gallardo, Léonard (*with* Schott, Renè) Marches aléatoires sur les espaces homogènes de certains groupes de type rigide. (English summary) **82e:60107a**
(*with* Ries, Vincent) Marches aléatoires sur les espaces homogènes du groupe des déplacements de $\mathbf{R}^n$. (English summary) **82e:60107b**

Gulati, Chandra M. *See* **Hill, James M., 82c:60128**

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Henderson, Robin *See* **Renshaw, Eric, 82f:60157**

Hill, James M. (*with* Gulati, Chandra M.) Collision probabilities for two random walking particles in terms of Legendre polynomials. **82c:60128**

Hodžibaev, V. R. *See* **Lotov, V. I., 82d:60126**

Huard, Alain Une caractérisation des marches aléatoires récurrentes des espaces homogènes du groupe des déplacements de $\mathbf{R}^d$. (English summary) **82e:60106**

Klein, Douglas J. Asymptotic distributions for self-avoiding walks constrained to strips, cylinders, and tubes. **82h:60088**

Kleitman, Daniel J. (*with* Winston, Kenneth J.) Ensembles and largest sojourns of random walks. **82h:60136**

Lindvall, Torgny *See* **Chung, Kai Lai, 82c:60127**

Lotov, V. I. (*with* Hodžibaev, V. R.) On the probability of ruin. (Russian) **82d:60126**

Macak, I. K. Asymptotic behavior of nonrecurrent random walks. (Russian) **82j:60124**

Mirzoeva, T. M. Asymptotic behavior of the number of crossings by a transient walk of a certain level. (Russian) **82a:60105**

Orsingher, Enzo The random elastic walk with growing mass. (Italian. English summary) **82c:60129**

Percus, J. K. *See* **Percus, O. E., 82e:60108**

Percus, O. E. (*with* Percus, J. K.) One-dimensional random walk with phase transition. **82e:60108**

Poliščuk, V. S. Moments of frequencies of sojourns of controlled walks in a fixed state. (Russian. English summary) **82m:60082**

Renshaw, Eric (*with* Henderson, Robin) The correlated random walk. **82f:60157**

Ries, Vincent *See* **Gallardo, Léonard, 82e:60107b**

Ritter, Grant A. Growth of random walks conditioned to stay positive. **82j:60125**

Rotar', V. I. *See* **Gafurov, M. U., 82k:60145**

Sabharwal, Y. P. (*with* Gupta, B. R.) Peak points in a symmetrically correlated random walk. **82m:60083**

Salant, Stephen W. *See* **Wenocur, Roberta S., 82f:60162**

Schott, Renè *See* **Gallardo, Léonard, 82e:60107a**

Sen, Kanwar *See* **Taneja, Sushma, 82e:60109**

Seneta, E. Another look at independence of hitting place and time for the simple random walk. **82f:60158**

Slastnikov, A. D. *See* **Gafurov, M. U., 82d:60125**

Takács, Lajos Random flights on regular polytopes. **82f:60159**

Taneja, Sushma (*with* Sen, Kanwar) Indices of returns, crossings and positive steps. **82e:60109**

Vassiliou, P.-C. G. A random walk between two random absorbing barriers. **82f:60160**

Weiss, George H. A note on lattice random walks with an excluded point. **82f:60161**
First passage time problems for one-dimensional random walks. **82e:60110**

Wenocur, Roberta S. (*with* Salant, Stephen W.) Recurrence of a modified random walk and its application to an economic model. **82f:60162**

Winston, Kenneth J. *See* **Kleitman, Daniel J., 82h:60136**

Zjukov, M. E. A limit theorem for random walks with jumps bounded on one side. (Russian) **82d:60127**

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Alimov, D. A class of Markov chains with an imbedded random walk. (Russian) **(82h:60084)**

Alt, Wolfgang Singular perturbation of differential integral equations describing biased random walks. **(82f:60169)**

Anšelevič, V. V. (*with* Vologodskiĭ, A. V.) Laplace operator and random walk on one-dimensional nonhomogeneous lattice. **(82k:82002)**

Arndt, K. The properties of boundary functionals of a random walk on a finite Markov chain. (Russian. English and German summaries) **(82f:60152)**

Baldi, P. Caractérisation des groupes de Lie connexes récurrents. [Characterisation of recurrent connected Lie groups] **(82k:60019)**

Blumen, A. (*with* Zumofen, G.) Energy transfer as a random walk on regular lattices. **(82h:82049)**

Bougerol, Philippe Comportement asymptotique des puissances de convolution d'une probabilité sur un espace symétrique. (English summary) **(82h:60020)**

Bratiĭčuk, N. S. Boundary value problems connected with the exit of a random walk from an interval. (Russian) **(82j:60137)**

Bruss, F. Thomas A counterpart of the Borel-Cantelli lemma. **(82f:60071)**

Chang, I Shou (*with* Hsiung, Chao Agnes) Functional limit theorems for processes with positive drift and first passage time processes. **(82d:60058)**

Clerc, Jean-Louis (*with* Roynette, B.) Un théorème central-limite. **(82i:58072)**

Crépel, Pierre Lois des grands écarts pour les marches aléatoires sur **R**. **(82c:60035)**

Derriennic, Yves Quelques applications du théorème ergodique sous-additif. (English summary) **(82e:60013)**

Diaconis, Persi (*with* Shahshahani, Mehrdad) Generating a random permutation with random transpositions. **(82h:60024)**

Domb, C. Averages in restricted random walks. **(82d:82081)**

Filonov, Ju. P. The limit distribution of a centered functional defined on a transient Markov chain. (Russian. English summary) **(82f:60153)**

Gerl, Peter A local central limit theorem on some groups. **(82h:60022)**

Gordon, Manfred (*with* Torkington, J. A.) Improvements in the random walk model of polymer chains. **(82g:60023)**

Guivarc'h, Yves Quelques propriétés asymptotiques des produits de matrices aléatoires. **(82b:60006)**

Sur les exposants de Liapounoff des marches aléatoires à pas markovien. (English summary) **(82i:60027)**

Gundy, Richard F. On a theorem of F. and M. Riesz and an equation of A. Wald. **(82k:60106)**

Hennion, H. (*with* Roynette, B.) Un théorème de dichotomie pour une marche aléatoire sur un espace homogène. (English summary) **(82f:60028)**

Hill, James M. A discrete random walk model for diffusion in media with double diffusivity. **(82e:76059)**

Hsiung, Chao Agnes *See* **Chang, I Shou**, **(82d:60058)**

Ishinabe, T. (*with* Whittington, S. G.) Surface critical exponents for self-avoiding walks on the tetrahedral lattice. **(82b:82097)**

Kaĭmanovič, V. A. The spectral measure of transition operator and harmonic functions connected with random walks on discrete groups. (Russian. English summary) **(82g:60017)**

Kindermann, Ross P. Asymptotic comparisons of functionals of Brownian motion and random walk. **(82c:60076)**

Klass, Michael J. A method of approximating expectations of functions of sums of independent random variables. **(82f:60119)**

Kozak, John J. *See* **Walsh, Cecilia A.**, **(82k:82048)**

Letac, G. (*with* Takács, Lajos) Random walks on a dodecahedron. **(82d:60121)**

Liggett, Thomas M. (*with* Spitzer, Frank) Ergodic theorems for coupled random walks and other systems with locally interacting components. **(82h:60193)**

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Martikainen, A. I. A criterion for the strong relative stability of a random walk on the line. (Russian) **(82c:60055)**

Munford, A. G. A first passage problem in a random walk with a quality control application. **(82h:62176)**

Novikov, A. A. Estimates and asymptotic behavior of the probability of not crossing moving boundaries by sums of independent random variables. (Russian) **(82a:60071)**

Prabhu, N. U. ★Stochastic storage processes. **(82i:60140)**

Rosenstock, Herbert B. (*with* Marquardt, Charles L.) Cluster formation in two-dimensional random walks: application to photolysis of silver halides. **(82c:82088)**

Rösler, Uwe Unimodality of passage times for one-dimensional strong Markov processes. **(82g:60103)**

Roussignol, M. Un processus de saut sur **R** à une infinité de particules. (English summary) **(82i:60181)**

Roynette, B. *See* **Hennion, H.**, **(82f:60028)** *and* **Clerc, Jean-Louis**, **(82i:58072)**

Serfozo, Richard Optimal control of random walks, birth and death processes, and queues. **(82d:60187)**

Shahshahani, Mehrdad *See* **Diaconis, Persi**, **(82h:60024)**

Siskind, V. State probabilities for a random walk arising in the theory of casino games. **(82k:60100)**

Spitzer, Frank *See* **Liggett, Thomas M.**, **(82h:60193)**

Takács, Lajos The arc sine law of Paul Lévy. **(82h:60049)**

See also **Letac, G.**, **(82d:60121)**

Torkington, J. A. *See* **Gordon, Manfred**, **(82g:60023)**

Vologodskiĭ, A. V. *See* **Anšelevič, V. V.**, **(82k:82002)**

Walsh, Cecilia A. (*with* Kozak, John J.) Exact algorithm for d-dimensional walks on finite and infinite lattices with traps. **(82k:82048)**

Whittington, S. G. *See* **Ishinabe, T.**, **(82b:82097)**

Woess, Wolfgang Aperiodische Wahrscheinlichkeitsmaße auf topologischen Gruppen. (English summary) **(82b:60008)**

Zumofen, G. *See* **Blumen, A.**, **(82h:82049)**

60J20 Applications of discrete Markov processes (social mobility, learning theory, industrial processes, etc.)

Berger, Roger L. A necessary and sufficient condition for reaching a consensus using DeGroot's method. **82j:60126**

Brumelle, Shelby L. (*with* Gerchak, Yigal) A stochastic model allowing interaction among individuals and its behavior for large populations. **82e:60111**

Gerchak, Yigal *See* **Brumelle, Shelby L.**, **82e:60111**

Grimmett, Geoffrey (*with* Treisman, Michel) On taking up position in a group: a continuous-time Markov model for biased random movement. **82a:60106**

Treisman, Michel *See* **Grimmett, Geoffrey**, **82a:60106**

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Lehoczky, John P. Approximations for interactive Markov chains in discrete and continuous time. **(82g:60137)**

Porteus, Evan L. Improved iterative computation of the expected discounted return in Markov and semi-Markov chains. (German summary) **(82b:90125)**

Stolov, E. L. A class of generators of pseudo-Markov chains. (Russian) **(82j:68096)**

60J25 Markov processes with continuous parameter

Albeverio, Sergio (*with* Høegh-Krohn, Raphael) Some Markov processes and Markov fields in quantum theory, group theory hydrodynamics and C^*-algebras. **82j:60127**

Anisimov, V. V. (*with* Sitjuk, V. N.) Asymptotic behavior of inhomogeneous Poisson flow with conductor function, dependent on a small parameter, controlled by a Markov chain. **82d:60128**

Bakirov, N. K. (*with* Sultanov, A. H.) On the probability that a level will not be exceeded by the trajectory of a random process. **82j:60128**

Barlow, Martin (*with* Rogers, L. C. G.; Williams, David) Wiener-Hopf factorization for matrices. **82b:60089a**

Bismut, Jean-Michel Problèmes à frontière libre et arbres de mesures. **82d:60129**

Chacon, R. V. (*with* Jamison, Benton) Traversal times of Markov processes. **82j:60129**

(*with* Le Jan, Yves; Walsh, John B.) Spatial trajectories. **82k:60146**

Chen, Mu Fa Reversible Markov processes in abstract space. (Chinese. English summary) **82f:60163**

Dawson, Donald A. An infinite geostochastic system. **82e:60112**

Èlbakidze, N. V. A probabilistic representation of the solution of a Hammerstein-type equation. (Russian. Georgian and English summaries) **82b:60090**

Frišling, V. A. A multiple analogue of Bellman's equation. (Russian. Georgian and English summaries) **82c:60130**

Getoor, R. K. Transience and recurrence of Markov processes. **82c:60131**

(*with* Sharpe, M. J.) Markov properties of a Markov process. **82j:60130**

Glover, Joseph Intrinsically homogeneous sets, splitting times, and the big shift. **82g:60093**

Gyires, Béla Stochastic processes with increments defined on a Markov chain. **82k:60147**

Hagood, John W. The operator-valued Feynman-Kac formula with noncommutative operators. **82c:60132**

Henze, Ernst (*with* Theodorescu, Radu; Wehking, Annette) On multiple Markov dependence. **82m:60084**

Høegh-Krohn, Raphael *See* **Albeverio, Sergio**, **82j:60127**

Hu, Di He The strong continuity property, Feller property, and strong Markov property of transition functions in a metric space. (Chinese) **82f:60164**

Ivan, Floarea Minimal Markov processes with continuous time in the framework of the theory of sum functions. II. (Romanian. French summary) **82e:60113**

Jamison, Benton *See* **Chacon, R. V.**, **82j:60129**

Körezlioğlu, Hayri (*with* Lefort, P.; Mazziotto, Gérald) Une propriété markovienne et diffusions associées. [A Markov property and associated diffusions] **82m:60085**

Küchler, Uwe (*with* Lunze, Ulrich) On the tail σ-field and the minimal parabolic functions for one-dimensional quasidiffusions. **82f:60165**

Kurtz, Thomas G. Representations of Markov processes as multiparameter time changes. **82d:60130**

Kuznecov, S. E. Any Markov process in a Borel space has a transition function. (Russian. English summary) **82d:60131**

Lefort, P. *See* **Körezlioğlu, Hayri; et al.**, **82m:60085**

Le Jan, Yves *See* **Chacon, R. V.; et al.**, **82k:60146**

Lunze, Ulrich *See* **Küchler, Uwe**, **82f:60165**

Mazziotto, Gérald *See* **Körezlioğlu, Hayri; et al.**, **82m:60085**

McDonald, John N. (*with* Weiss, N. A.) A system of Markov processes with random lifetimes. **82j:60131**

Mo, Wen Chuan Countable homogeneous Markov processes with identical hitting distributions. (Chinese. English summary) **82f:60166**

Nikunen, Martti Limit theorems for certain continuous Markov processes. **82a:60107**

Weak compactness of a family of measures corresponding to continuous strong Markov processes. (Russian. English summary) **82d:60132**

Ôkura, Hiroyuki Some limit theorems of Donsker-Varadhan type for Markov process expectations. **82j:60132**

Pitman, Jim W. *See* **Rogers, L. C. G.**, **82j:60133**

Rëznikov, S. Ĭ. Phase enlargement of random processes that are supplemental to Markov processes. (Russian) **82d:60133**

A limit theorem of phase enlargement type for Markov processes. (Russian) **82e:60114**

A limit theorem of phase enlargement type for random processes that are components of weakly inhomogeneous Markov processes. (Russian. English summary) **82h:60091**

Rogers, L. C. G. (*with* Williams, David) Time-substitution based on fluctuating additive functionals (Wiener-Hopf factorization for infinitesimal generators). **82b:60089b**

(*with* Pitman, Jim W.) Markov functions. **82j:60133**

See also **Barlow, Martin; et al.**, **82b:60089a**

Seidel, Heidrun The trace of a one-dimensional Markov process with Lévy measure. **82d:60134**

Sharpe, M. J. *See* **Getoor, R. K.**, **82j:60130**

Siegrist, Kyle Random evolution processes with feedback. **82g:60094**

Sitjuk, V. N. *See* **Anisimov, V. V.**, **82d:60128**

Sultanov, A. H. *See* **Bakirov, N. K.**, **82j:60128**

Šur, M. G. Asymptotic behavior of multistep transition probabilities. (Russian. Lithuanian and English summaries) **82e:60115**

Continuity criteria for Markov processes. (Russian. English summary) **82d:60135**

Šurenkov, V. M. Random walks on the half line. I. Boundary problems and the ergodic theorem. (Russian. English summary) **82j:60134a**

Random walks on the half line. II. Limit distributions of boundary functionals. (Russian. English summary) **82j:60134b**

Taksar, M. I. Subprocesses of stationary Markov processes. **82d:60136**

Theodorescu, Radu *See* **Henze, Ernst; et al., 82m:60084**

Turbin, A. F. Abstract potential operators of strongly ergodic Markov processes. (Russian. English summary) **82g:60095**

Tweedie, R. L. Criteria for ergodicity, exponential ergodicity and strong ergodicity of Markov processes. **82h:60092**

Walsh, John B. *See* **Chacon, R. V.; et al., 82k:60146**

Wehking, Annette *See* **Henze, Ernst; et al., 82m:60084**

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Weiss, N. A. *See* **McDonald, John N., 82j:60131**

Williams, David *See* **Barlow, Martin; et al., 82h:60089a** *and* **Rogers, L. C. G., 82h:60089b**

Yu, Zhong Ming *See* **Zhong, Hu Mian, 82h:60137**

Zhong, Hu Mian (*with* Yu, Zhong Ming) On the invariant set and periodicity of the solution of a class of probability measure equations. (Chinese. English summary) **82h:60137**

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Abrahams, Julia (*with* Thomas, John B.) Some comments on conditionally Markov and reciprocal Gaussian processes. **82k:60074)**

Annaev, T. A. A stochastic system with income. I. (Russian) **(82f:60198)**
(*with* Pirdžanov, B.) Distribution of the first passage time over a given level for a random walk on a sawtooth Markov process. (Russian. English summary) **(82h:60093)**
A generalization of the compound Poisson process. (Russian) **(82f:60202)**

Bilopol's'ka, Ja. Ī. On stochastic equations with unbounded coefficients for jump processes. **(82j:60101)**

Chernick, Michael R. On strong mixing and Leadbetter's *D* condition. **(82j:60120)**

Çinlar, E. (*with* Jacod, Jean; Protter, Philip; Sharpe, M. J.) Semimartingales and Markov processes. **(82h:60084)**

Čistjakov, A. V. Convergence of finite-dimensional distributions of a Markov process that is controllable by a rapidly ergodic process. (Russian) **(82j:60032)**

Courbage, Maurice *See* **Misra, Baidyanath; et al., (82e:58066)**

Direev, Ju. V. An ergodic theorem for additive functionals. (Russian. English summary) **(82e:60119)**

Föllmer, Hans Dirichlet processes. **(82i:60088)**

Glover, Joseph Compactifications for dual processes. **(82g:60100)**
Raw time changes of Markov processes. **(82h:60143)**

Godovan'čuk, V. V. Asymptotic behavior of probabilities of large deviations arising from the large jumps of a Markov process. (Russian. English summary) **(82k:60057)**

Guo, Mao Zheng *See* **Wu, Cheng Xun, (82j:60151)**

Harlamov, B. P. A criterion for the Markov property for continuous semi-Markov processes. (Russian. English summary) **(82d:60177)**

Harris, Theodore E. Brownian motions on the homeomorphisms of the plane. **(82e:60130)**

Holley, Richard A. (*with* Stroock, Daniel W.) Central limit phenomena of various interacting systems. **(82e:60163)**

Hudson, R. L. The strong Markov property for canonical Wiener processes. **(82j:46082)**

Iosifescu, Marius ★Finite Markov processes and their applications. **(82c:60123)**

Jacod, Jean *See* **Çinlar, E.; et al., (82h:60084)**

Johnstone, Iain ★A probabilistic study of linear elliptic-parabolic equations of second order. **(82i:60114)**

Kaštanov, Ju. N. Improvement of convergence in Monte Carlo calculation of functionals of a stationary distribution of a Markov chain. (Russian. English summary) **(82e:65007)**

Klein, Abel (*with* Landau, Lawrence J.) Periodic Gaussian Osterwalder-Schrader positive processes and the two-sided Markov property on the circle. **(82j:60061)**

Kowada, Masasi *See* **Mori, Makoto, (82j:60184)**

Kozlov, O. K. (*with* Vasil'ev, N. B.) Reversible Markov chains with local interaction. **(82c:60180)**

Landau, Lawrence J. *See* **Klein, Abel, (82j:60061)**

Langouche, F. (*with* Roekaerts, D.; Tirapegui, Enrique) General Langevin equations and functional integration. **(82h:82022)**

Lavenda, B. H. On the equivalence between classical Markov processes and quantum mechanics. **(82f:81005)**

Le Jan, Yves Tribus markoviennes et prédiction. **(82i:60072)**

Lin, Michael Weak mixing for semigroups of Markov operators without finite invariant measures. **(82e:47019)**

Maljarenko, A. A. A class of multidimensional random fields of Markov type. (Russian. English summary) **(82k:60117)**

McNamara, J. M. Optimal stopping for a Markov process: a new characterisation of the optimal policy. **(82f:60091)**

Misra, Baidyanath (*with* Prigogine, Ilya; Courbage, Maurice) From deterministic dynamics to probabilistic descriptions. **(82e:58066)**
(*with* Prigogine, Ilya) On the foundations of kinetic theory. **(82k:82009)**

Mori, Makoto (*with* Kowada, Masasi) Dynamical system with continuous states and relative free energy. **(82j:60184)**

Nagai, Hideo On an impulsive control of additive processes. **(82a:93074)**

Nagasawa, Masao Basic models of branching processes. (French summary) **(82h:60160)**

Pirdžanov, B. *See* **Annaev, T. A., (82b:60093)**

Pluciński, Edmund Piecewise monotonic transformations of the discrete stochastic processes. **(82j:60056)**

Prabhu, N. U. ★Stochastic storage processes. **(82i:60140)**

Prigogine, Ilya *See* **Misra, Baidyanath; et al., (82e:58066)** *and* **(82k:82009)**

Protter, Philip *See* **Çinlar, E.; et al., (82h:60084)**

Qian, Min Extension of an elliptic differential operator and $\hat{C}$ semigroups. (Chinese. English summary) **(82f:35070)**

Roekaerts, D. *See* **Langouche, F.; et al., (82h:82022)**

Rozanov, Ju. A. Investigation of the Markov property of random fields. (Russian) **(82i:60100)**

Sakaguchi, Minoru (*with* Tamaki, Mitsushi) Optimal stopping problems associated with a nonhomogeneous Markov process. **(82f:60094)**

Salminen, Paavo Martin boundaries for some space-time Markov processes. **(82g:60101)**

Sharpe, M. J. *See* **Çinlar, E.; et al., (82h:60084)**

Stroock, Daniel W. *See* **Holley, Richard A., (82e:60163)**

Sunada, Toshikazu Spherical means and geodesic chains on a Riemannian manifold. **(82k:58088)**

Tamaki, Mitsushi *See* **Sakaguchi, Minoru, (82f:60094)**

Thomas, John B. *See* **Abrahams, Julia, (82k:60074)**

Tirapegui, Enrique *See* **Langouche, F.; et al., (82h:82022)**

Vasil'ev, N. B. *See* **Kozlov, O. K., (82c:60180)**

Walsh, John B. Well-timed diffusion approximations. **(82f:60174)**

Wu, Cheng Xun (*with* Guo, Mao Zheng) The stationary diffusion processes generated by second-order differential operators and their probability currents. (Chinese. English summary) **(82j:60151)**

Yor, Marc Remarques sur une formule de Paul Lévy. **(82c:60144)**

60J27 Markov chains with continuous parameter

Anisimov, V. V. (*with* Sitjuk, V. N.) On the convergence of a nonhomogeneous Markov chain to a process with independent values controlled by a nonhomogeneous Markov process. (Russian. English summary) **82h:60138**

Chen, Mu Fa *See* **Hou, Zhen Ting, 82i:60123**

Cuculescu, I. A recurrence definition of certain homogeneous Markov processes. Applications to queueing processes. (Romanian. English summary) **82f:60167**

Džafarov, K. M. Distribution of the time of attainment of a low level by a process with positive jumps and negative drift. (Russian) **82h:60139**

Ežov, Ī. Ī. (*with* Lakatos, László) Probabilities of states of a queueing system described by an inhomogeneous Markov chain. (Russian. English summary) **82a:60108**

Formanov, Š. K. A multidimensional limit theorem for homogeneous Markov chains with continuous time. (Russian) **82c:60134**

Hazen, Gordon B. (*with* Pritsker, A. Alan B.) Formulas for the variance of the sample mean in finite state Markov processes. **82d:60137**

Hou, Zhen Ting (*with* Chen, Mu Fa) Markov processes and field theory. **82i:60123**

Hu, Di He Limit distributions of functionals of Markov chains. (Chinese) **82h:60140**

Lakatos, László *See* **Ežov, Ī. Ī., 82a:60108**

Pritsker, A. Alan B. *See* **Hazen, Gordon B., 82d:60137**

Rosenlund, Stig I. Markov chains in small time intervals. **82m:60086**

Sitjuk, V. N. *See* **Anisimov, V. V., 82h:60138**

Sobolevskiĭ, P. I. Recurrent formulas for an approximate calculation of Poisson continual integrals. (Russian. English summary) **82f:60168**

secondary classifications:

Aničkin, S. A. *See* **Kalašnikov, V. V., (82e:60003)**

Annaev, T. A. (*with* Lakatos, László) Analysis of states of a homogeneous system with unordinary arrival and paired servicing of customers. (Russian) **(82m:60115a)**
(*with* Lakatos, László) On the probabilities of states of an inhomogeneous system with unordinary arrival and paired servicing of customers. (Russian) **(82m:60115b)**

Athreya, K. B. (*with* Tweedie, R. L.; Vere-Jones, D.) Asymptotic behaviour of point processes with Markov-dependent intervals. **(82m:60057)**

Čencov, N. N. *See* **Morozova, E. A., (82f:46072)**

Davis, M. H. A. On a multiplicative functional transformation arising in nonlinear filtering theory. **(82i:60074)**

Kalašnikov, V. V. (*with* Aničkin, S. A.) Continuity of random sequences and approximation of Markov chains. **(82e:60003)**

Lakatos, László Probabilistic states of a queueing system described by a nonhomogeneous Markov chain. (Russian) **(82f:60221)**
See also **Annaev, T. A., (82m:60115a)** *and* **Annaev, T. A., (82m:60115b)**

Morozova, E. A. (*with* Čencov, N. N.) Algebra of bounded harmonic functions of a countable Markov chain (noncommutative theory). (Russian) **(82f:46072)**

Tweedie, R. L. *See* **Athreya, K. B.; et al., (82m:60057)**

Vere-Jones, D. *See* **Athreya, K. B.; et al., (82m:60057)**

60J30 Processes with independent increments

Annaev, T. A. (*with* Pirdžanov, B.) Distribution of the first passage time over a given level for a random walk on a sawtooth Markov process. (Russian. English summary) **82h:60093**

Barlow, Martin Zero-one laws for the excursions and range of a Lévy process. **82j:60135**

Bingham, N. H. Wiener-Hopf and related methods in probability. **82j:60136**

Borovskih, Ju. V. Complete asymptotic expansions for the resolvent of a semicontinuous process with independent increments with absorption and distribution of the ruin probability. (Russian) **82d:60138**

Bratiĭčuk, N. S. Boundary value problems connected with the exit of a random walk from an interval. (Russian) **82j:60137**

Bucan, G. P. The mixed product of nonhomogeneous stochastic semigroups. (Russian. English summary) **82h:60094**
(*with* Bucan, S. P.) Inhomogeneous stochastic semigroups. (Russian) **82m:60087**

Bucan, S. P. The Lévy expansion for nonhomogeneous multiplicative stochastic semigroups. (Russian) **82m:60088**
See also **Bucan, G. P., 82m:60087**

Ehm, W. Sample function properties of multiparameter stable processes. **82g:60096**

Ežov, Ī. Ī. (*with* Zjukov, M. E.) Distributions of functionals of processes with independent increments and jumps that are bounded below. (Russian) **82j:60138**

Forst, Gunnar Subordinates of the Poisson semigroup. **82k:60148**

Gusak, D. V. Distribution of the sojourn time of a homogeneous process with independent increments over an arbitrary level. (Russian. English summary) **82g:60097**

Kazi, Kimio The asymptotics of the potential functions of one-sided stable processes. **82d:60139**
Lin, T. F. Multiple integrals of a homogeneous process with independent increments. **82h:60141**
Nakonečnii, A. N. Time and size of the jump beyond a zero level for a process with independent increments and a reflecting screen. (Ukrainian. English and Russian summaries) **82m:60089**
Pirdžanov, B. *See* **Annaev, T. A., 82b:60093**
Riedel, M. Characterization of stable processes by identically distributed stochastic integrals. **82a:60109**
Sitjuk, V. N. Limit behavior of an inhomogeneous Poisson process defined on a discrete Markov chain. (Russian) **82a:60110**
Suprun, V. M. (*with* Šurenkov, V. M.) The state of a homogeneous process with independent increments and jumps of one sign at the time of exit from an interval (the critical case). (Russian) **82d:60140**
(*with* Šurenkov, V. M.) Limit distribution of the position at the time of exit from an interval of a semicontinuous process with independent increments with zero mean and infinite variance. (Russian) **82b:60095**
Šurenkov, V. M. *See* **Suprun, V. M., 82b:60095** *and* **82d:60140**
Taksar, M. I. Regenerative sets on real line. **82d:60141**
Tucker, Howard G. (*with* Wright, Larry A.) An integral strong law of large numbers for processes with independent increments. **82e:60116**
Wang, Jia Gang Some remarks on processes with independent increments. **82h:60142**
Wright, Larry A. *See* **Tucker, Howard G., 82e:60116**
Zjukov, M. E. *See* **Ežov, I. I., 82j:60138**

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Adler, Robert J. Correction to: "The uniform dimension of the level sets of a Brownian sheet" [Ann. Probab. **6** (1978), no. 3, 509–515; MR 80a:60102]. **(82h:60148)**
Akritas, Michael G. (*with* Johnson, Richard A.) Asymptotic inference in Lévy processes of the discontinuous type. **(82k:62160)**
Basis, V. Ja. Stationarity and ergodicity of Markov interacting processes. **(82d:60189)**
Benveniste, Albert (*with* Jacod, Jean) One application of the representation theorem for martingales: isomorphism for flows of processes with independent increments. (Russian and Lithuanian summaries) **(82a:60064)**
Cambanis, Stamatis (*with* Miller, Grady) Some path properties of pth order and symmetric stable processes. **(82c:60070)**
Gal'čuk, L. I. Stable subspaces and a theorem on the decomposition of martingales. (Russian. English summary) **(82c:60085)**
Gallardo, Léonard Processus subordonnés au mouvement brownien sur les groupes de Lie nilpotents. (English summary) **(82c:60140)**
Jacod, Jean *See* **Benveniste, Albert, (82a:60064)**
Johnson, Richard A. *See* **Akritas, Michael G., (82k:62160)**
Kalinauskaitė, N. Strong γ-variation and random measures with values in $\mathbf{R}^1$. (Russian. Lithuanian and English summaries) **(82d:60094)**
Lakatos, László Probabilistic states of a queueing system described by a nonhomogeneous Markov chain. (Russian) **(82f:60221)**
Lin'kov, Ju. M. Asymptotic normality of stochastic integrals and statistics of discontinuous processes. (Russian. English summary) **(82f:60127)**
Miller, Grady *See* **Cambanis, Stamatis, (82c:60070)**
Nualart Rodón, David Decomposition of independent valued stochastic measures. **(82a:60074)**
Širjaev, A. N. Absolute continuity and singularity of probability measures in functional spaces. **(82f:60088)**

60J35 Transition functions, generators and resolvents [See also 47D05, 47D07.]

Bouleau, Nicolas Propriétés d'invariance du domaine du générateur infinitésimal étendu d'un processus de Markov. **82m:60090**
Bronner, François Random time change and recurrent boundary. **82e:60117**
Carmona, René Processus de diffusion gouverné par la forme de Dirichlet de l'opérateur de Schrödinger. (English summary) **82a:60111**
Opérateur de Schrödinger à résolvante compacte. (English summary) **82a:60112**
Johansen, Søren (*with* Ramsey, Fred L.) A bang-bang representation for 3×3 embeddable stochastic matrices. **82b:60096**
Kiu, Sun Wah Semistable Markov processes in $\mathbf{R}^n$. **82g:60098**
Koroljuk, V. S. (*with* Turbin, A. F.) ★Математические основы фазового укрупнения сложных систем. (Russian) [Mathematical foundations of phase extension of complex systems] **82a:60113**
Le Jan, Yves Semi-groups markoviens et dualité. (English summary) **82c:60135**
Nisio, Makiko On the optimal stopping semigroup for controlled Markov processes. **82g:60099**
Ôshima, Yôichi A relation between an asymptotic probability and the maximal eigenvalue of a recurrent potential kernel. **82b:60097**
Qian, Min The invariant measure and ergodic property of a Markov semigroup. (Chinese. English summary) **82a:60114**
Ramsey, Fred L. *See* **Johansen, Søren, 82b:60096**
Stoica, Lucretiu On a result of T. Watanabe on excessive functions. **82c:60136**
Turbin, A. F. *See* **Koroljuk, V. S., 82a:60113**

secondary classifications:

Demuth, M. On scattering of diffusion process generators. **(82j:81052)**
Forst, Gunnar Sur le théorème de Hunt-Lion-Hirsch. (English summary) **(82e:31015)**
Gurvic, L. N. (*with* Zaharin, O. M.) Consolidation of semigroup systems and their invariants. (Russian) **(82m:47031)**
Jona-Lasinio, G. (*with* Martinelli, F.; Scoppola, E.) New approach to the semiclassical limit of quantum mechanics. I. Multiple tunnelings in one dimension. **(82k:81013)**
Le Jan, Yves Martingales et changements de temps. **(82h:60088)**
Martinelli, F. *See* **Jona-Lasinio, G.; et al., (82k:81013)**
Roth, Jean-Pierre Recollement de semi-groupes de Feller locaux. **(82a:47041)**
Scoppola, E. *See* **Jona-Lasinio, G.; et al., (82k:81013)**
Stettner, Ł. (*with* Zabczyk, J.) Strong envelopes of stochastic processes and a penalty method. **(82e:60081)**
Šurenkov, V. M. Random walks on the half line. I. Boundary problems and the ergodic theorem. (Russian. English summary) **(82j:60134a)**
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Tomisaki, Matsuyo Dirichlet forms and diffusion processes associated with product measures. **(82h:60147)**
Yasue, Kunio A path-probability representation for wavefunctions. **(82i:81044)**
Zabczyk, J. *See* **Stettner, Ł., (82e:60081)**
Zaharin, O. M. *See* **Gurvic, L. N., (82m:47031)**

60J40 Hunt processes

Le Jan, Yves On the jumps of time changed diffusions. **82k:60149**

secondary classifications:

Chung, Kai Lai (*with* Rao, Murali) A new setting for potential theory. I. **(82k:60150a)**
(*with* Rao, Murali) Erratum: "A new setting for potential theory. I". **(82k:60150b)**
Feyel, Denis Représentation des fonctionnelles surmédianes. [Representation of supermedian functionals] **(82m:31013)**
Rao, Murali *See* **Chung, Kai Lai, (82k:60150a)** *and* **(82k:60150b)**

60J45 Probabilistic potential theory [See also 31–XX.]

Buiculescu, M. Representation of excessive functions as potentials of additive functionals for regular Markov processes. (Russian summary) **82j:60139**
Chung, Kai Lai (*with* Rao, Murali) A new setting for potential theory. I. **82k:60150a**
(*with* Rao, Murali) Erratum: "A new setting for potential theory. I". **82k:60150b**
Dembinski, V. (*with* Janssen, K.) Standard balayage spaces and standard Markov processes. **82e:60118**
Glover, Joseph Compactifications for dual processes. **82g:60100**
Janssen, K. *See* **Dembinski, V., 82e:60118**
Kerstan, Johannes (*with* Wakolbinger, Anton) Opérateurs markoviens et l'ensemble de leurs lois de probabilité invariantes. (English summary) **82b:60098**
Nguyen-Xuan-Loc Singularities of locally analytic processes (with applications in the study of finely holomorphic and finely harmonic functions). **82a:60115**
Rao, Murali A note on Revuz measure. **82d:60142**
See also **Chung, Kai Lai, 82k:60150**
Salminen, Paavo Martin boundaries for some space-time Markov processes. **82g:60101**
Wakolbinger, Anton *See* **Kerstan, Johannes, 82b:60098**

secondary classifications:

Bismut, Jean-Michel Problèmes à frontière libre et arbres de mesures. **(82d:60129)**
Bliedtner, J. (*with* Hansen, Wolfhard) Bases in standard balayage spaces. **(82b:31020)**
Boboc, Nicu (*with* Bucur, Gheorghe; Cornea, Aurel) ★Order and convexity in potential theory: H-cones. **(82i:31011)**
Bucur, Gheorghe *See* **Boboc, Nicu; et al., (82i:31011)**
Carmona, René Infinite-dimensional Newtonian potentials. **(82f:60175)**
Chacon, R. V. (*with* Le Jan, Yves; Perkins, Edwin; Taylor, Samuel James) Generalised arc length for Brownian motion and Lévy processes. **(82j:60152)**
Cornea, Aurel *See* **Boboc, Nicu; et al., (82i:31011)**
Dehen, Danièle (*with* Mastrangelo-Dehen, Michèle) Les p-topologiques et les équations différentielles stochastiques. (English summary) **(82b:60063)**
See also **Mastrangelo-Dehen, Michèle (82g:31006)**
Doob, J. L. Classical potential theory and Brownian motion. **(82h:31001)**
Foguel, Shaul R. Harris operators. **(82a:47007)**
Hansen, Wolfhard *See* **Bliedtner, J., (82b:31020)**
(Höllein, Herbert) *See* **Boboc, Nicu; et al., (82i:31011)**
Kazi, Kimio The asymptotics of the potential functions of one-sided stable processes. **(82d:60139)**
Küchler, Uwe (*with* Lunze, Ulrich) On the tail σ-field and the minimal parabolic functions for one-dimensional quasidiffusions. **(82f:60165)**
Le Jan, Yves Semi-groups markoviens en dualité. (English summary) **(82c:60135)**
See also **Chacon, R. V.; et al., (82j:60152)**
Lunze, Ulrich *See* **Küchler, Uwe, (82f:60165)**
Mastrangelo-Dehen, Michèle Différentiabilité fine et différentiabilité sur des compacts. **(82k:31008)** *See* **Dehen, Danièle, (82b:60063)**
(*with* Dehen, Danièle) Les p-topologies en théorie du potentiel. (English summary) **(82g:31006)**
Meyer, Paul-André (*with* Stricker, Christophe; Yor, Marc) Sur une formule de la théorie du balayage. **(82f:60118c)**
Okada, Masami Potentiels kählériens et espaces de Dirichlet. (English summary) **(82h:32027)**
Paclet, Philippe Espaces de Dirichlet et capacités fonctionnelles sur des triplets de Hilbert Schmidt. **(82k:46073)**
Pavlov, I. V. Extreme rays and integral representation in the cone of martingales. (Russian. English summary) **(82f:60107)**
Perkins, Edwin *See* **Chacon, R. V.; et al., (82j:60152)**
Poliščuk, V. S. Moments of frequencies of sojourns of controlled walks in a fixed state. (Russian. English summary) **(82m:60082)**
Popa, Eugen Standard spaces of balayage-standard H-cones. **(82i:31012)**
Stricker, Christophe Encore une remarque sur la "formule de balayage". **(82f:60118d)**
See also **Meyer, Paul-André; et al., (82f:60118c)**
Taylor, Samuel James *See* **Chacon, R. V.; et al., (82j:60152)**

Walsh, John B. Optional increasing paths. **(82k:60101)**
Wang, Zi Kun Last exit distributions and maximum excursion for Brownian motion. **(82j:60157)**
Yor, Marc Sur le balayage des semi-martingales continues. **(82f:60118a)**
See also **Meyer, Paul-André; et al., (82f:60118c)**

60J50 Boundary theory

secondary classifications:

Chaleyat-Maurel, M. (*with* El Karoui, Nicole; Marchal, B.) Réflexion discontinue et systèmes stochastiques. (English summary) **(82k:60135)**
El Karoui, Nicole *See* **Chaleyat-Maurel, M.; et al., (82k:60135)**
Grigelionis, Bronius (*with* Mikulevičius, R.) On semimartingales with values in Euclidean halfspaces. **(82i:60089)**
Grimmett, Geoffrey Random labelled trees and their branching networks. **(82g:05042)**
Le Jan, Yves Problèmes frontières en théorie du potentiel. **(82a:31013)**
Marchal, B. *See* **Chaleyat-Maurel, M.; et al., (82k:60135)**
Mikulevičius, R. *See* **Grigelionis, Bronius, (82i:60089)**

60J55 Local time and additive functionals

Borisov, I. S. On conditions for the existence of a bounded density for the distribution of additive functionals for some random processes. (Russian. English summary) **82j:60140**
Bouleau, Nicolas (*with* Yor, Marc) Sur la variation quadratique des temps locaux de certaines semimartingales. (English summary) **82d:60143**
Direev, Ju. V. On an ergodic theorem for additive functionals. (Russian) **82a:60116**
An ergodic theorem for additive functionals. (Russian. English summary) **82e:60119**
Dynkin, E. B. Additive functionals of several time-reversible Markov processes. **82i:60124**
Fukushima, Masatoshi On a representation of local martingale additive functionals of symmetric diffusions. **82j:60141**
Geman, D. (*with* Horowitz, Joseph) Smooth perturbations of a function with a smooth local time. **82j:60142**
Glover, Joseph Raw time changes of Markov processes. **82h:60143**
Greenwood, Priscilla (*with* Pitman, Jim W.) Construction of local time and Poisson point processes from nested arrays. **82a:60117**
Horowitz, Joseph *See* **Geman, D., 82j:60142**
Jacod, Jean (*with* Maisonneuve, Bernard) Remarques sur les fonctionnelles additives non adaptées des processus de Markov. **82c:60137**
Kasahara, Yuji On Lévy's downcrossing theorem. **82e:60120**
Maisonneuve, Bernard On Levy's downcrossing theorem and various extensions. **82m:60091**
See also **Jacod, Jean, 82c:60137**
Nagaev, A. V. Local theorems for sums of ladder epochs. (Russian) **82d:60144**
Perkins, Edwin On the iterated logarithm law for local time. **82c:60138**
Pitman, Jim W. *See* **Greenwood, Priscilla, 82a:60117**
Yor, Marc *See* **Bouleau, Nicolas, 82d:60143**

secondary classifications:

Adler, Robert J. A Hölder condition for the local time of the Brownian sheet. **(82b:60056)**
Anulova, S. V. Diffusion processes with singular characteristics. **(82k:60151)**
Banah, D. *See* **Sil'vestrov, D. S., (82f:60073)**
Barlow, Martin Zero-one laws for the excursions and range of a Lévy process. **(82j:60135)**
Bouleau, Nicolas Propriétés d'invariance du domaine du générateur infinitésimal étendu d'un processus de Markov. **(82m:60090)**
Semi-martingales à valeurs $\mathbf{R}^d$ et fonctions convexes. (English summary) **(82c:60082)**
Bronner, François Random time change and recurrent boundary. **(82e:60117)**
Dobrušin, R. L. (*with* Kel'bert, M. Ja.) Local additive functionals of generalized Gaussian fields. (Russian) **(82e:60086)**
Gaveau, Bernard Estimation de fonctionnelles de Kac et de certaines fonctionnelles non markoviennes singulières. (English summary) **(82f:60176)**
Grigelionis, Bronius (*with* Mikulevičius, R.) Stochastic processes with penetrable boundaries. (Russian. Lithuanian and English summaries) **(82h:60052)**
He, Sheng Wu *See* **Zheng, Wei An, (82f:60110)**
Hooghiemstra, G. On the explicit form of the density of Brownian excursion local time. **(82k:60156)**
Jondral, Friedrich Some remarks about generalized functionals of complex white noise. **(82e:60131)**
Kel'bert, M. Ja. *See* **Dobrušin, R. L., (82e:60086)**
Mikulevičius, R. *See* **Grigelionis, Bronius, (82h:60052)**
Pierre, Michel Le problème de Skorokhod: une remarque sur la démonstration d'Azéma-Yor. **(82f:60108)**
Rao, M. M. Local functionals. **(82a:46038)**
Rogers, L. C. G. (*with* Williams, David) Time-substitution based on fluctuating additive functionals (Wiener-Hopf factorization for infinitesimal generators). **(82b:60089b)**
Shale, David Random functions of Poisson type. **(82e:60129)**
Sharpe, M. J. Local times and singularities of continuous local martingales. **(82d:60090)**
Sil'vestrov, D. S. (*with* Banah, D.) Uniform mean ergodic theorems for accumulation processes. (Russian. English summary) **(82f:60073)**
Watanabe, Shinzo Excursion point process of diffusion and stochastic integral. **(82i:60130)**
Weidenfeld, G. Changements de temps de processus de Markov. **(82c:60133)**
Williams, David *See* **Rogers, L. C. G., (82b:60089b)**
Yan, Jia An Some formulas for the local time of semimartingales. (Chinese. English summary) **(82j:60077)**
Zheng, Wei An (*with* He, Sheng Wu) On local times and trajectories of the continuous local martingales. (Chinese. English summary) **(82f:60110)**

60J57 Multiplicative functionals

Chung, Kai Lai (*with* Varadhan, S. R. S.) Kac functional and Schrödinger equation. **82d:60145**
Dalec'kiĭ, Ju. L. Multiplicative operator functionals of Markov processes and their applications. **82i:60125**
Varadhan, S. R. S. *See* **Chung, Kai Lai, 82d:60145**

secondary classifications:

Gaveau, Bernard (*with* Mazet, Edmond) Divergence des fonctionnelles de Kac et diffusion quantique. (English summary) **(82c:81036)**
Mazet, Edmond *See* **Gaveau, Bernard, (82c:81036)**

60J60 Diffusion processes [See also 58G32.]

Alt, Wolfgang Singular perturbation of differential integral equations describing biased random walks. **82f:60169**
Anulova, S. V. Diffusion processes with singular characteristics. **82k:60151**
Bach, Alexander A lower bound for the transition probability density of a diffusion process. **82e:60121**
Bhattacharya, Rabindra Nath Correction to: "Criteria for recurrence and existence of invariant measures for multidimensional diffusions" [Ann. Probab. **6** (1978), no. 4, 541–553; MR **58** #13375]. **82b:60099**
Bismut, Jean-Michel (*with* Michel, Dominique) Structure des diffusions conditionnelles et calcul des variations. (English summary) **82f:60170**
Bluman, George W. On the transformation of diffusion processes into the Wiener process. **82b:60100**
Čerkasov, I. D. Transformation of diffusion equations according to the method of A. N. Kolmogorov. (Russian) **82b:60101**
On the theory of time-optimal control of diffusion processes. (Russian) **82e:60122**
Wienerization of diffusion processes. (Russian) **82h:60144**
Corwin, Thomas L. On multiplicative functionals on diffusion processes. **82m:60092**
Cranston, Michael (*with* Orey, Steven; Rösler, Uwe) Exterior Dirichlet problems and the asymptotic behavior of diffusions. **82e:60123**
Ethier, S. N. (*with* Kurtz, Thomas G.) The infinitely-many-neutral-alleles diffusion model. **82j:60143**
Fleming, Wendell H. Exit probabilities for diffusions depending on small parameters. **82e:60124**
Fukushima, Masatoshi A generalized stochastic calculus in homogenization. **82h:60145**
Granas, A. (*with* Guenther, R. B.; Lee, J. W.) Applications of topological transversality to differential equations. I. Some nonlinear diffusion problems. **82h:60146**
Guenther, R. B. *See* **Granas, A.; et al., 82h:60146**
Guo, Mao Zheng *See* **Wu, Cheng Xun, 82j:60151**
Harrison, J. Michael (*with* Shepp, L. A.) On skew Brownian motion. **82j:60144**
Hernández Lerma, Onésimo Exit probabilities for degenerate systems. **82a:60118**
Exit probabilities for a class of perturbed degenerate systems. **82f:60171**
Holley, Richard A. (*with* Stroock, Daniel W.) Diffusions on an infinite-dimensional torus. **82k:60152**
Ichihara, Kanji (*with* Watanabe, Hisao) Double points for diffusion processes. **82g:60102**
Isakova, T. I. A limit theorem for diffusion processes. (Russian) **82j:60145**
Kifer, Yuri The spectrum of small random perturbations of dynamical systems. **82e:60125**
Kopytko, B. I. Pasting together of Brownian motion processes. (Russian) **82e:60126**
Pasting together of two diffusion processes on a straight line. (Russian) **82i:60126**
Krylov, N. V. (*with* Pragarauskas, H.) On the Bellman equation for uniformly nondegenerate general stochastic processes. (Russian. Lithuanian and English summaries) **82b:60102**
Kurtz, Thomas G. *See* **Ethier, S. N., 82j:60143**
Lee, J. W. *See* **Granas, A.; et al., 82h:60146**
Lions, Pierre-Louis (*with* Menaldi, José-Luis; Sznitman, Alain-Sol) Construction de processus de diffusion réfléchis par pénalisation du domaine. (English summary) **82f:60172**
Control of diffusion processes in $\mathbf{R}^N$. **82i:60127**
Maĭster, P. I. Branching diffusion processes in an unbounded domain. (Russian) **82j:60146**
McGill, Paul A direct proof of the Ray-Knight theorem. **82j:60147**
Menaldi, José-Luis *See* **Lions, Pierre-Louis; et al., 82f:60172**
Michel, Dominique *See* **Bismut, Jean-Michel, 82f:60170**
Miyahara, Yoshio Infinite-dimensional Langevin equation and Fokker-Planck equation. **82e:60127**
Narita, Kiyomasa On explosion and growth order of inhomogeneous diffusion processes. **82i:60128**
Nishioka, Kunio The degenerate Neumann problem and degenerate diffusions with Venttsel's boundary conditions. **82e:60139**
Okada, Norio A martingale problem associated with diffusion operators in a domain. **82j:60148**
Orey, Steven *See* **Cranston, Michael; et al., 82e:60123**
Ôshima, Yôichi On stochastic differential equations characterizing some singular diffusion processes. **82f:60173**
Pinsky, Mark A. Three problems in stochastic Riemannian geometry. **82m:60093**
Pitman, Jim W. (*with* Yor, Marc) Bessel processes and infinitely divisible laws. **82j:60149**
Pluciñska, Agnieszka Remarks on prospective equations. (Russian summary) **82b:60103**
Pragarauskas, H. *See* **Krylov, N. V., 82b:60102**
Rogers, L. C. G. Characterizing all diffusions with the $2M-X$ property. **82j:60150**
Rösler, Uwe Unimodality of passage times for one-dimensional strong Markov processes. **82g:60103**

See also **Cranston, Michael; et al., 82e:60123**

Rozovskiĭ, B. L. Conditional distributions of degenerate diffusion processes. (Russian. English summary) **82e:60128**

Safarjan, R. G. Some boundary value problems with a small parameter for degenerate diffusion processes and corresponding differential equations. (Russian. Armenian and English summaries) **82d:60146**

Scholz, Hans-Eberhard Einige für die Konstruktion und Untersuchung stetiger Monte-Carlo-Methoden nützliche Definitionen und Sätze aus der Theorie der homogenen Markoffschen Prozesse. **82g:60104**

Shale, David Random functions of Poisson type. **82e:60129**

Sharpe, M. J. Some transformations of diffusions by time reversal. **82d:60147**

Shepp, L. A. *See* **Harrison, J. Michael, 82j:60144**

Shiga, Tokuzo Diffusion processes in population genetics. **82i:60129**

Stroock, Daniel W. *See* **Holley, Richard A., 82k:60152**

Sznitman, Alain-Sol *See* **Lions, Pierre-Louis; et al., 82f:60172**

Tobias, T. Estimates of the coefficients of a diffusion process from indirect observations. (Russian) **82g:60105**

Tomisaki, Matsuyo Dirichlet forms and diffusion processes associated with product measures. **82h:60147**

Tsuchiya, Masaaki Smooth and monotonic approximation to potentials and Itô's formula for diffusion processes on $\mathbf{R}^d$. **82m:60094**

Üstünel, Ali Süleyman Construction of branching diffusion processes and their optimal stochastic control. **82d:60148**

Walsh, John B. Well-timed diffusion approximations. **82f:60174**

Watanabe, Hisao *See* **Ichihara, Kanji, 82g:60102**

Watanabe, Shinzo Excursion point process of diffusion and stochastic integral. **82i:60130**
Construction of diffusion processes with Wentzell's boundary conditions by means of Poisson point processes of Brownian excursions. **82a:60119**

Williams, David Conditional excursion theory. **82d:60149**

Wu, Cheng Xun (*with* Guo, Mao Zheng) The stationary diffusion processes generated by second-order differential operators and their probability currents. (Chinese. English summary) **82j:60151**

Yor, Marc *See* **Pitman, Jim W., 82j:60149**

Zinčenko, N. M. Upper and lower functions of random fields with independent increments. (Russian) **82d:60150**

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Albeverio, Sergio (*with* Høegh-Krohn, Raphael) The method of Dirichlet forms. **(82d:81066)**

Amano, Kazuo Maximum principles for degenerate elliptic-parabolic equations with Venttsel's boundary condition. **(82c:35029)**

Anulova, S. V. Stochastic differential equations with boundary conditions in a half space. (Russian) **(82k:60126)**

Babčuk, V. G. ★Инвариантные множества системы линейных стохастических диффузионных уравнений с постоянными коэффициентами. (Russian) [Invariant sets of a system of linear stochastic diffusion equations with constant coefficients] **(82f:60132)**

Bach, Alexander (*with* Dürr, D.) On the equivalence between different methods of modelling diffusion processes. **(82b:60062)**

Banon, G. (*with* Nguyen, Hung T.) Recursive estimation in diffusion model. **(82k:62071)**

Basseville, Michèle Déviations par rapport au maximum: formules d'arrêt et martingales associées. **(82e:60077)**

Bensoussan, Alain (*with* Lions, Jacques-Louis) Optimal stopping-time problems for reflected diffusion processes. **(82i:60076)**

Bismut, Jean-Michel Martingales, the Malliavin calculus and Hörmander's theorem. **(82h:60114)**

Combe, Ph. (*with* Høegh-Krohn, Raphael; Rodriguez, R.; Sirugue, M.; Sirugue-Collin, M.) Poisson processes on groups and Feynman path integrals. **(82c:81040)**

Corwin, Thomas L. On search for a Brownian target. **(82a:90075)**

Dekker, H. On the most probable transition path of a general diffusion process. **(82b:82008)**

Doss, Halim Quelques formules asymptotiques pour les petites perturbations de systèmes dynamiques. **(82a:60083)**

Duhamel, Pierre *See* **Mailliat, Alain, (82h:76028)**

Dürr, D. *See* **Bach, Alexander, (82b:60062)**

Fukushima, Masatoshi On a representation of local martingale additive functionals of symmetric diffusions. **(82j:60141)**

Groh, Jürgen Optimal control of one-dimensional nonconservative quasidiffusion processes. **(82b:93053)**

Guess, Harry A. An invariance principle for solutions to stochastic difference equations. **(82h:60087)**

Hanggi, Peter (*with* Shuler, Kurt E.; Oppenheim, Irwin) On the relations between Markovian master equations and stochastic differential equations. **(82m:60066)**

Helland, Inge S. Minimal conditions for weak convergence to a diffusion process on the line. **(82f:60068)**

Hitsuda, Masuyuki *See* **Tanaka, Hiroshi, (82h:82028)**

Høegh-Krohn, Raphael *See* **Combe, Ph.; et al., (82c:81040)** *and* **Albeverio, Sergio, (82d:81066)**

Huang, Hai *See* **Kushner, Harold J., (82i:60118)**

Ito, Hidemi Mariko An entropy-minimum aspect of the equivalent linearization of a nonlinear stochastic differential equation. **(82k:60127)**

Itô, Masayuki (*with* Suzuki, Noriaki) Completely superharmonic measures for the infinitesimal generator A of a diffusion semigroup and positive eigenelements of A. **(82k:31009)**

Jeulin, Thierry ★Semi-martingales et grossissement d'une filtration. (French) [Semimartingales and enlargement of a filtration] **(82h:60106)**

Karlin, Samuel (*with* Taylor, Howard M.) ★A second course in stochastic processes. **(82j:60003)**

Kesten, Harry (*with* Papanicolaou, George C.) A limit theorem for stochastic acceleration. **(82c:82013)**

Kifer, Yuri A probabilistic version of Bowen-Ruelle's volume lemma. **(82b:58066)**
Stochastic stability of the topological pressure. **(82c:58050)**

Knight, Frank B. ★Essentials of Brownian motion and diffusion. **(82m:60098)**

Konovalov, A. G. A local limit theorem on the limit transfer to a diffusion process. (Russian. English summary) **(82k:60143)**

Körezlioğlu, Hayri (*with* Lefort, P.; Mazziotto, Gérald) Une propriété markovienne et diffusions associées. [A Markov property and associated diffusions] **(82m:60085)**

Küchler, Uwe (*with* Lunze, Ulrich) On the tail σ-field and the minimal parabolic functions for one-dimensional quasidiffusions. **(82f:60165)**

Kulinič, G. L. On the asymptotic behavior of the solution of dimensional stochastic diffusion equation. **(82g:60080)**
(*with* Le Thien Hyong) On the construction and limit behavior of a multiple stochastic integral of a diffusion process. (Russian. English summary) **(82h:60108)**

Kushner, Harold J. Approximation methods for the minimum average cost per unit time problem with a diffusion model. **(82c:90065)**
(*with* Huang, Hai) On the weak convergence of a sequence of general stochastic difference equations to a diffusion. **(82i:60118)**

Lefort, P. *See* **Körezlioğlu, Hayri; et al., (82m:60085)**

Le Thien Hyong *See* **Kulinič, G. L., (82h:60108)**

Lions, Jacques-Louis *See* **Bensoussan, Alain, (82i:60076)**

Lunze, Ulrich *See* **Küchler, Uwe, (82f:60165)**

Mailliat, Alain (*with* Duhamel, Pierre) Sur les propriétés des densités de probabilité lagrangiennes. (English summary) **(82h:76028)**

Mazziotto, Gérald *See* **Körezlioğlu, Hayri; et al., (82m:60085)**

McNeil, Donald R. (*with* Schach, Siegfried) Central limit analogues for Markov population processes. **(82f:60070)**

Menaldi, José-Luis On the optimal stopping time problem for degenerate diffusions. **(82f:60092a)**
On the optimal impulse control problem for degenerate diffusions. **(82f:60092b)**

Mihailovskaja, L. G. Optimal stopping of a controllable diffusion process. (Russian. English summary) **(82c:60077)**

Mišura, Ju. S. Convergence of certain functionals of integral type in the uniform topology. (Russian) **(82d:60097)**

Nakazawa, Hiroshi Sample structure of forced Burgers turbulence. **(82i:76048)**

Nguyen, Hung T. *See* **Banon, G., (82k:62071)**

Nikolić-Despotović, Danica One type of random diffusion equation. (Serbo-Croatian summary) **(82g:35125)**

Nisio, Makiko On a nonlinear semigroup associated with stochastic optimal control and its excessive majorant. **(82j:93057)**

Nualart Rodón, David (*with* Sanz, M.) Random Gaussian Markov fields. **(82e:60087)**

Oppenheim, Irwin *See* **Hanggi, Peter; et al., (82m:60066)**

Papanicolaou, George C. *See* **Kesten, Harry, (82c:82013)**

Pinsky, Mark A. Homogenization in stochastic differential geometry. **(82e:58103)**

Pisanec, S. I. Limit theorems for processes of diffusion type in $\mathbf{R}^m$. (Russian. English summary) **(82m:60069)**

Platen, Eckhard An approximation method for a class of Itô processes. (Lithuanian and Russian summaries) **(82g:60083)**

Plucińśki, Edmund On some properties of discrete stochastic processes. **(82b:60115)**

Poliv'anii, V. O. (*with* Semenov, Ju. A.) On the theory of generalized diffusion processes. (Russian) **(82m:60070)**

Pragarauskas, H. On Bellman equation for controlled degenerate general stochastic processes. **(82i:93096)**
On the Bellman equation for weakly degenerate general random processes. (Russian. Lithuanian and English summaries) **(82a:93075)**
On the limit transition in degenerate Bellman equations. (Russian. Lithuanian and English summaries) **(82d:47052)**

Rodriguez, R. *See* **Combe, Ph.; et al., (82c:81040)**

Safarjan, R. G. *See* **Sarafjan, V. V., (82d:35023)**

Sanz, M. *See* **Nualart Rodón, David, (82e:60087)**

Sarafjan, V. V. (*with* Safarjan, R. G.) Diffusion processes with averaging, and propagation of concentrated waves. (Russian. Armenian summary) **(82d:35023)**

Sato, Ken-iti Convergence of a class of Markov chains to multidimensional degenerate diffusion processes. **(82c:60125)**

Schach, Siegfried *See* **McNeil, Donald R., (82f:60070)**

Seidel, Heidrun The trace of a one-dimensional Markov process with Lévy measure. **(82d:60134)**

Semenov, Ju. A. *See* **Poliv'anii, V. O., (82m:60070)**

Shiga, Tokuzo (*with* Shimizu, Akinobu) Infinite-dimensional stochastic differential equations and their applications. **(82i:60110)**

Shimizu, Akinobu *See* **Shiga, Tokuzo, (82i:60110)**

Shuler, Kurt E. *See* **Hanggi, Peter; et al., (82m:60066)**

Sirugue, M. *See* **Combe, Ph.; et al., (82c:81040)**

Sirugue-Collin, M. *See* **Combe, Ph.; et al., (82c:81040)**

Stroock, Daniel W. (*with* Yor, Marc) On extremal solutions of martingale problems. **(82b:60051)**

Suzuki, Noriaki *See* **Itô, Masayuki, (82k:31009)**

Takahashi, Yōichirō (*with* Watanabe, Shinzo) The probability functionals (Onsager-Machlup functions) of diffusion processes. **(82i:58075)**

Tanaka, Hiroshi (*with* Hitsuda, Masuyuki) Central limit theorem for a simple diffusion model of interacting particles. **(82h:82028)**

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Watanabe, Shinzo *See* **Takahashi, Yōichirō, (82i:58075)**
Yamato, Yuiti Stochastic differential equations and nilpotent Lie algebras. **(82f:60143)**
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60J65 Brownian motion [See also 58G32.]

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Borisenko, A. D. (*with* Rylova, T. N.) Determination of the distribution of particle diffusion in a two-layer medium on the plane. (Russian. English summary) **82h:60151**
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Chung, Kai Lai Brownian motion on the line. **82k:60154**
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Harris, Theodore E. Brownian motions on the homeomorphisms of the plane. **82e:60130**
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Jennen, Christel (*with* Lerche, Hans Rudolf) First exit densities of Brownian motion through one-sided moving boundaries. **82k:60157**
Jeulin, Thierry Un théorème de J. W. Pitman. **82d:60154**
Jondral, Friedrich Some remarks about generalized functionals of complex white noise. **82e:60131**
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Katkauskaitė, Aldona On the properties of the conditional mathematical expectation and variance of the Wiener field. (Russian. Lithuanian and English summaries) **82d:60155**
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Le Jan, Yves *See* **Chacon, R. V.; et al., 82j:60152**
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Lerche, Hans Rudolf *See* **Jennen, Christel, 82k:60157**
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Perkins, Edwin A global intrinsic characterization of Brownian local time. **82k:60158**
See also **Chacon, R. V.; et al., 82j:60152**
Pitman, Jim W. (*with* Yor, Marc) Processus de Bessel, et mouvement brownien, avec "drift". (English summary) **82b:60105**
Reiman, Martin I. *See* **Harrison, J. Michael, 82c:60141** *and* **82j:60154**
Révész, Pál How small are the increments of a Wiener sheet? **82i:60133**
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Salminen, Paavo The 3-dimensional Bessel process and Brownian motion. **82e:60133**
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Ševljakov, A. Ju. Clark's formula for two-parameter Wiener processes. (Russian) **82d:60158**
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Ugbebor, Olabisi O. Ergodic properties of Brownian motion. **82i:60134**
Varopoulos, Nicholas Th. A probabilistic proof of the Garnett-Jones theorem on BMO. **82f:60181**
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(*with* Yor, Marc) Le problème de Skorokhod: compléments à "Une solution simple au problème de Skorokhod". **(82c:60073b)**
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Cocozza, C. (*with* Yor, Marc) Démonstration d'un théorème de F. Knight à l'aide de martingales exponentielles. **(82h:60085)**
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Gundy, Richard F. (*with* Varopoulos, Nicholas Th.) Les transformations de Riesz et les intégrales stochastiques. (English summary) **(82e:60089)**
Guyon, Xavier (*with* Prum, Bernard) Identification et estimation de semi-martingales représentables par rapport à un brownien à un indice double. [Identification and estimation of semimartingales representable with respect to a double-index Brownian process] **(82k:60109)**
Gzyl, Henryk *See* **Betz, Cristina, (82h:60113)**
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Isaacson, David The continuum limit of a classical 3-component, one-dimensional Heisenberg model is Brownian motion on the surface of a sphere. **(82m:82043)**
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Kallianpur, Gopinath ★Stochastic filtering theory. **(82f:60089)**
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Retour sur la théorie de Littlewood-Paley. **(82m:60050)**
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Miyahara, Yoshio Infinite-dimensional Langevin equation and Fokker-Planck equation. **(82e:60127)**
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(*with* Sanz, M.) Changing time for two-parameter strong martingales. (French summary) **(82i:60081)**
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Prum, Bernard *See* **Guyon, Xavier, (82k:60109)**
Révész, Pál A generalization of Strassen's functional law of iterated logarithm. **(82c:60057)**
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San Miguel, M. (*with* Sancho, J. M.) Fokker-Planck approximation for N-dimensional non-Markovian Langevin equations. **(82a:82026)**
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Torondžadze, T. A. (*with* Čitašvili, R. Ja.) On the equivalence of weakly and strongly regular stochastic differential equations. (Russian. Georgian and English summaries) **(82f:60141)**
Tsuchiya, Masaaki On the stochastic differential equation for a Brownian motion with oblique reflection on the half plane. **(82d:60112)**
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Varopoulos, Nicholas Th. The Helson-Szegő theorem and A_p-functions for Brownian motion and several variables. **(82a:60069)**
See also **Gundy, Richard F., (82e:60089)**
Veretennikov, A. Ju. Strong solutions and explicit formulas for solutions of stochastic integral equations. (Russian) **(82f:60147)**
Walsh, John B. Optional increasing paths. **(82k:60101)**
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Zakai, Moshe Some classes of two-parameter martingales. **(82f:60109)**

60J70 Applications of diffusion theory (population genetics, absorption problems, etc.)

Barbour, A. D. Density dependent Markov population processes. **82k:60159**
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Hanson, Floyd B. (*with* Tier, Charles) An asymptotic solution of the first passage problem for singular diffusion in population biology. **82d:60159**
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Inaba, Yutaka *See* **Kitahara, Kazuo; et al., 82b:60107**
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Kitahara, Kazuo (*with* Horsthemke, Werner; Lefever, René; Inaba, Yutaka) Phase diagrams of noise induced transitions—exact results for a class of external coloured noise. **82b:60107**
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Okada, Norio On the uniqueness problem of two-dimensional diffusion processes occurring in population genetics. **82i:60135**
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Barra, M. (*with* Del Grosso, G.; Gerardi, A.; Koch, Giorgio; Marchetti, Franco E.) Some basic properties of stochastic population models. **(82h:92030)**
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Dawson, Donald A. (*with* Salehi, Habib) Spatially homogeneous random evolutions. **(82c:60102)**
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Ethier, S. N. (*with* Kurtz, Thomas G.) The infinitely-many-neutral-alleles diffusion model. **(82j:60143)**
Frauenthal, James C. ★Mathematical modeling in epidemiology. **(82j:92051)**
Gerardi, A. *See* **Barra, M.; et al., (82h:92030)**
Goldman, M. Barry (*with* Beja, Avraham) Market prices vs. equilibrium prices: returns' variance, serial correlation, and the role of the specialist. **(82a:90022)**
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Gurtin, Morton E. (*with* MacCamy, R. C.) Diffusion models for age-structured populations. **(82j:92053)**
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Haussmann, U. G. On the adjoint process for optimal control of diffusion processes. **(82i:49012a)**
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Krylov, N. V. On the traditional proof of the Bellman equation for controllable diffusion processes. (Russian. Lithuanian and English summaries) **(82h:93087)**
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McNeil, Donald R. (*with* Schach, Siegfried) Central limit analogues for Markov population processes. **(82f:60070)**
Nagasawa, Masao (*with* Maruyama, Takeo) An application of time reversal of Markov processes to a problem of population genetics. **(82g:92027)**
Newman, William I. Some exact solutions to a nonlinear diffusion problem in population genetics and combustion. **(82i:92017)**
Orzack, Steven Hecht *See* **Tuljapurkar, S. D., (82k:92056)**
Perlow, J. Stationary densities for frequency-dependent selection. **(82m:92051)**
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Salehi, Habib *See* **Dawson, Donald A., (82c:60102)**
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Watson, Ray On the size distribution for some epidemic models. **(82j:92058)**
An application of a martingale central limit theorem to the standard epidemic model. **(82e:60044)**
Wickens, Thomas D. *See* **Larkin, Jill H., (82i:92041)**

60J75 Jump processes

Ahmedova, G. M. (*with* Nasirova, T. I.) Distribution of functionals of a class of jump processes. (Russian) **82k:60162**
An ergodic theorem for a generalized Poisson process with a delaying screen. (Russian) **82e:60135**
Melamed, Benjamin On Poisson traffic processes in discrete-state Markovian systems with applications to queueing theory. **82a:60121a**
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Suprun, V. M. (*with* Šurenkov, V. M.) On the limit distribution of the position at the time of exit from an interval of a complex Poisson process with zero mean and infinite variance. (Russian) **82k:60163**
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Keepler, Manuel On random evolutions induced by countable state space Markov chains. **(82j:60113)**

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Ohtsubo, Yoshio Controlled jump processes with a choice of stopping rules: a criterion of average type. **(82i:93095)**

Yor, Marc *See* **Lépingle, D.; et al., (82i:60086)**

60J80 Branching processes (Galton-Watson, birth-and-death, etc.)

Aliev, S. A. (*with* Šurenkov, V. M.) Transition phenomena in branching processes. (Russian) **82e:60136**

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A limit theorem for branching processes with continuous time. (Russian. Azerbaijani and English summaries) **82k:60164**

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Boiko, R. V. Limit theorems for a branching process in a varying environment. (Russian) **82k:60165**

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60K30 Applications (congestion, allocation, storage, traffic, etc.) [See also 60J80.]

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Ali Khan, M. S. (*with* Abu-Salih, M. S.) Finite dams with Markovian inputs and random withdrawal policy. **82h:60191**
Brockwell, Peter J. (*with* Pacheco-Santiago, N.) Invariant imbedding and dams with Markovian input rate. **82c:60175**
Falin, G. I. Switching systems with allowance for repeated calls. **82g:60130**
Harrison, J. Michael (*with* Lemoine, Austin J.) Sticky Brownian motion as the limit of storage processes. **82i:60172**
Hrubant, K. *See* **Lánský, P.; et al., 82j:60181**
Indra, M. *See* **Lánský, P.; et al., 82j:60181**
Kel'bert, M. Ja. The existence of the limiting distributions in some networks of communication of messages. **82e:60161**
Lánský, P. (*with* Radil-Weiss, T.; Hrubant, K.; Indra, M.) A note to the selective interaction models of single neuron firing trains. **82j:60181**
Lemoine, Austin J. *See* **Harrison, J. Michael, 82i:60172**
Mandl, Petr A mathematical model of storage. **82j:60182**
Narasimhulu, Y. C. (*with* Sastry, M. P.) Problem of optimization in theory of dams. **82a:60146**
Pacheco-Santiago, N. *See* **Brockwell, Peter J., 82c:60175**
Pakes, Anthony G. Discrete dams with Markovian inputs. **82h:60192**
Phatarfod, Ravindra M. The infinitely deep dam with seasonal Markov inflows. **82k:60207**

Phien, Huynh Ngoc Reservoir storage problem with independent normal inflows. **82f:60230**
Radil-Weiss, T. *See* **Lánský, P.; et al., 82j:60181**
Sastry, M. P. *See* **Narasimhulu, Y. C., 82a:60146**
Whitt, Ward The stationary distribution of a stochastic clearing process. **82i:60173**

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Bingham, N. H. Wiener-Hopf and related methods in probability. **(82j:60136)**
Clarke, Robin T. Multivariate synthetic hydrology: a theoretical viewpoint. (*See* **82k:86001**)
Conolly, Brian ★Techniques in operational research. Vol. 2. **(82m:90062)**
Delbrouck, L. E. N. A unified approximate evaluation of congestion functions for smooth and peaky traffics. **(82a:94005)**
Dooge, J. C. I. Deterministic input-output models. (*See* **82k:86001**)
Graves, Stephen C. (*with* Keilson, Julian) The compensation method applied to a one-product production/inventory problem. **(82i:90029)**
Keilson, Julian *See* **Graves, Stephen C., (82i:90029)**
Kesten, Harry Random processes in random environments. **(82d:60165)**
Kruse, W. Karl Waiting time in a continuous review (s,S) inventory system with constant lead times. **(82c:90032)**
Lloyd, Emlyn H. Stochastic storage problems. (*See* **82k:86001**)
Nasirova, T. I. *See* **Ahmedova, G. M., (82k:60162)**
Nucho, R. N. Transient behavior of the Kendall birth-death process—applications to capacity expansion for special services. **(82f:60186)**
Ord, K. (*with* Rees, M.) Spatial processes: recent developments with applications to hydrology. (*See* **82k:86001**)
Puri, Prem S. (*with* Woolford, Samuel W.) On a generalized storage model with moment assumptions. **(82h:60173)**
Rees, M. *See* **Ord, K.,** (*See* **82k:86001**)
Rydz, B. Stochastic storage problems: the water management background. (*See* **82k:86001**)
Schürger, Klaus A class of branching processes on a lattice with interactions. **(82e:60134)**
Tijms, H. C. A unified steady-state analysis for controlled Markov drift processes in inventory, queueing and replacement problems. **(82h:60171)**
Wilkinson, John Craven Operational aspects of water resource problems. (*See* **82k:86001**)
Woolford, Samuel W. *See* **Puri, Prem S., (82h:60173)**

60K35 Interacting random processes; statistical mechanics type models; percolation theory

Basis, V. Ja. Stationarity and ergodicity of Markov interacting processes. **82d:60189**
Berman, Mark The covariance of two type II counters. **82m:60125**
Bleher, P. M. ε-expansion for automodel random fields. **82g:60131**
Bramson, Maury (*with* Griffeath, David) On the Williams-Bjerknes tumour growth model. II. **82f:60231b**
(*with* Griffeath, David) Asymptotics for interacting particle systems on $\mathbf{Z}^d$. **82a:60147**
(*with* Griffeath, David) On the Williams-Bjerknes tumour growth model. I. **82f:60231a**
Cocozza, C. (*with* Galves, A.; Roussignol, M.) Étude de deux évolutions markoviennes de processus ponctuels sur $\mathbf{R}$ par des méthodes d'association. (English summary) **82d:60190**
Cox, J. Theodore The time constant of first-passage percolation on the square lattice. **82i:60179**
(*with* Durrett, Richard) Some limit theorems for percolation processes with necessary and sufficient conditions. **82k:60208**
(*with* Grimmett, Geoffrey) Central limit theorems for percolation models. **82k:60209**
Dobrušin, R. L. (*with* Šlosman, S. B.) Nonexistence of one- and two-dimensional Gibbs fields with noncompact group of continuous symmetries. **82e:60162**
Durrett, Richard On the growth of one-dimensional contact processes. **82b:60126**
An introduction to infinite particle systems. **82m:60126**
See also **Cox, J. Theodore, 82k:60208**
Fichtner, Karl-Heinz (*with* Freudenberg, W.) Weak ergodic theorems for nonlinear averaging procedures. **82a:60148**
(*with* Freudenberg, W.) Asymptotic behaviour of time evolutions of infinite particle systems. **82g:60132**
Föllmer, Hans Tail structure of Markov chains on infinite product spaces. **82c:60176**
Local interactions with a global signal: a voter model. **82g:60133**
On the global Markov property. **82d:60191**
Freudenberg, W. *See* **Fichtner, Karl-Heinz, 82a:60148** *and* **82g:60132**
Funk, Gerald M. *See* **Kryscio, Richard J.; et al., 82g:60136** *and* **Saunders, Roy; et al., 82k:60215**
Galves, A. (*with* Kipnis, C.; Marchioro, C.; Presutti, Errico) Nonequilibrium measures which exhibit a temperature gradient: study of a model. **82m:60127**
See also **Cocozza, C.; et al., 82d:60190**
Gleeson, A. C. (*with* McGilchrist, Clyde A.) Bilateral processes on a rectangular lattice. **82c:60177**
Glötzl, Erhard Bemerkungen zu einer Arbeit von O. K. Kozlov: "A Gibbsian description of point random fields" (Russian) [Teor. Verojatnost. i Primenen. **21** (1976), no. 2, 348–365; MR **54** #3885]. **82d:60192**
Lokale Energien und Potentiale für Punktprozesse. **82g:60134**
Griffeath, David The basic contact processes. **82i:60174**
See also **Bramson, Maury, 82a:60147** *and* **82f:60231**
Grimmett, Geoffrey Critical sponge dimensions in percolation theory. **82k:60210**
On the differentiability of the number of clusters per vertex in the percolation model. **82g:60135**
See also **Cox, J. Theodore, 82k:60209**
Hammersley, J. M. Percolation. **82i:60175**
Holley, Richard A. (*with* Stroock, Daniel W.) Central limit phenomena of various interacting systems. **82e:60163**
(*with* Liggett, Thomas M.) Generalized potlatch and smoothing processes. **82i:60176**
Iordache, Octavian (*with* Iosifescu, Marius) A discrete stochastic model with applications to mixing. **82k:60211**
Iosifescu, Marius *See* **Iordache, Octavian, 82k:60211**
Isham, Valerie An introduction to spatial point processes and Markov random fields. (French summary) **82i:60177**
Janson, Svante An upper bound for the velocity of first-passage percolation. **82c:60178**
Kesten, Harry (*with* Spitzer, Frank) A limit theorem related to a new class of self-similar processes. **82a:60149**
On the time constant and path length of first-passage percolation. **82i:60178**
The critical probability of bond percolation on the square lattice equals $\frac{1}{2}$. **82c:60179**
Kindermann, Ross P. (*with* Snell, J. Laurie) ★Markov random fields and their applications. **82j:60183**
Kipnis, C. *See* **Galves, A.; et al., 82m:60127**
Kowada, Masasi *See* **Mori, Makoto, 82j:60184** *and* **82k:60212**
Kozlov, O. K. (*with* Vasil'ev, N. B.) Reversible Markov chains with local interaction. **82c:60180**
See also **Glötzl, Erhard, 82d:60192**
Kryscio, Richard J. (*with* Saunders, Roy; Funk, Gerald M.) Normal approximations for binary lattice systems. **82g:60136**
See also **Saunders, Roy; et al., 82k:60215**
Lang, Reinhard (*with* Nguyen, Xuan-Xanh) Smoluchowski's theory of coagulation in colloids holds rigorously in the Boltzmann-Grad-limit. **82i:60180**
Lehoczky, John P. Approximations for interactive Markov chains in discrete and continuous time. **82g:60137**
Liggett, Thomas M. Interacting Markov processes. **82g:60138**
(*with* Spitzer, Frank) Ergodic theorems for coupled random walks and other systems with locally interacting components. **82h:60193**
See also **Holley, Richard A., 82i:60176**
Marchioro, C. *See* **Galves, A.; et al., 82m:60127**
McGilchrist, Clyde A. *See* **Gleeson, A. C., 82c:60177**
Mori, Makoto (*with* Kowada, Masasi) Dynamical system with continuous states and relative free energy. **82j:60184**
(*with* Kowada, Masasi) Relative free energy and its application to speed change model. **82k:60212**
Nguyen, Xuan-Xanh *See* **Lang, Reinhard, 82i:60180**
Papangelou, F. On the convergence of interacting particle systems to the Poisson process. **82d:60193**
Pickard, David K. Unilateral Markov fields. **82e:60164**
Preston, Chris Construction of specifications. **82j:60185**
Presutti, Errico *See* **Galves, A.; et al., 82m:60127**
Rauchenschwandtner, Berthold ★Gibbsprozesse und Papangeloukerne. (German) [Gibbsian processes and Papangelou kernels] **82f:60232**
(*with* Wakolbinger, Anton) Some aspects of the Papangelou kernel. **82k:60213**
Rost, Hermann Nonequilibrium solutions of an infinite system of stochastic differential equations. **82k:60214**
Roussignol, M. Un processus de saut sur $\mathbf{R}$ à une infinité de particules. (English summary) **82i:60181**
See also **Cocozza, C.; et al., 82d:60190**
Russo, Lucio On the critical percolation probabilities. **82i:60182**
Saunders, Roy (*with* Kryscio, Richard J.; Funk, Gerald M.) Poisson limits for a hard-core clustering model. **82k:60215**
See also **Kryscio, Richard J.; et al., 82g:60136**
Schürger, Klaus On a class of branching processes on a lattice with interactions. **82h:60194**
Skorohod, A. V. Limiting behavior of a large number of randomly interacting particles. (Russian) **82a:60150**
Šlosman, S. B. *See* **Dobrušin, R. L., 82e:60162**
Smythe, R. T. Percolation models in two and three dimensions. **82i:60183**
Snell, J. Laurie *See* **Kindermann, Ross P., 82j:60183**
Spitzer, Frank Infinite systems with locally interacting components. **82j:60186**
See also **Kesten, Harry, 82a:60149** *and* **Liggett, Thomas M., 82h:60193**
Stroock, Daniel W. *See* **Holley, Richard A., 82e:60163**
Thomas, Lawrence E. Stochastic coupling and thermodynamic inequalities. **82a:60151**
Vasil'ev, N. B. *See* **Kozlov, O. K., 82c:60180**
Wakolbinger, Anton *See* **Rauchenschwandtner, Berthold, 82k:60213**
Wierman, John C. Bond percolation on honeycomb and triangular lattices. **82k:60216**

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Aizenman, Michael (*with* Delyon, François; Souillard, Bernard) Lower bounds on the cluster size distribution. **(82b:82048)**
Proof of the triviality of φ_d^4 field theory and some mean-field features of Ising models for $d>4$. **(82g:81048)**
Anisimov, V. V. Limit theorems for processes that admit the asymptotic consolidation of a component. (Russian. English summary) **(82d:60033)**
Anšelevič, V. V. (*with* Vologodskiĭ, A. V.) Laplace operator and random walk on one-dimensional nonhomogeneous lattice. **(82k:82002)**
(*with* Vologodskiĭ, A. V.) Random walk on a one-dimensional inhomogeneous lattice. **(82k:82057)**
(Bártfai, P.) *See* **Point processes and queueing problems, (82f:60006)**
Brot, C. *See* **Tresser, C.; et al., (82c:82103)**
Brunnschweiler, A. A connection between the Boltzmann equation and the Ornstein-Uhlenbeck process. **(82i:82037)**

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Carmona, René Processus de diffusion gouverné par la forme de Dirichlet de l'opérateur de Schrödinger. (English summary) **(82a:60111)**

Opérateur de Schrödinger à résolvante compacte. (English summary) **(82a:60112)**

Chen, Mu Fa *See* **Ding, Wan Ding, (82m:82008)**

Chmielowski, W. *See* **Knast, K., (82m:82011)**

Combe, Ph. (*with* Hoegh-Krohn, Raphael; Rodriguez, R.; Sirugue, M.; Sirugue-Collin, M.) Feynman formula and Poisson processes for gentle perturbations. **(82e:81017)**

Coste, Jean *See* **Tresser, C.; et al., (82c:82103)**

Dalĭan, Ju. R. The local limit theorem for a class of marked point fields and the problem of equivalence of ensembles in quantum statistical mechanics. **(82j:82007)**

De'Bell, K. (*with* Essam, J. W.) Mean field theory of percolation with application to surface effects. **(82h:82031)**

Debes, Hermann Random motions of infinite particle systems on $\mathbf{R}^1$ without overtaking. (Russian) **(82k:60100)**

De Dominicis, Rodolfo (*with* Mascolo, Elvira) Convergence of sums of random variables that are dependent in blocks. (Italian. English summary) **(82j:60034)**

Delyon, François *See* **Aizenman, Michael; et al., (82h:82048)**

Ding, Wan Ding (*with* Chen, Mu Fa) Quasireversible measures of nearest neighbor speed functions. (Chinese. English summary) **(82m:82008)**

Dobrušin, R. L. Gaussian random fields—Gibbsian point of view. **(82d:60095)**

Domany, Eytan (*with* Kinzel, Wolfgang) Directed percolation in two dimensions: numerical analysis and an exact solution. **(82g:82038)**

Essam, J. W. *See* **De'Bell, K., (82h:82031)**

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Faris, William G. The Rayleigh-Schrödinger expansion of the Gibbs state of a classical Heisenberg ferromagnet. **(82d:82006)**

Frank, D. J. *See* **Lobb, C. J.; et al., (82c:82070)**

Fröhlich, Jürg The pure phases (harmonic functions) of generalized processes or: Mathematical physics of phase transitions and symmetry breaking. **(82c:60096)**

(*with* Park, Yong Moon) Correlation inequalities and the thermodynamic limit for classical and quantum continuous systems. II. Bose-Einstein and Fermi-Dirac statistics. **(82g:82006)**

(Gamkrelidze, R. V.) *See* **Probability theory. Mathematical statistics. Theoretical cybernetics, (82f:60003)**

Georgii, Hans-Otto Percolation for low energy clusters and discrete symmetry breaking in classical spin systems. **(82m:82010)**

Glötzl, Erhard On the statistics of Gibbsian processes. **(82i:62063)**

Gončar, M. S. (*with* Mackiv, R. S.) Uniform random non-Gaussian fields and their application to the quantum field theory. (Russian) **(82h:81059)**

Gururajan, M. On a two-valued process generated by the interaction of two independent renewal processes. **(82m:60107)**

Haake, Fritz (*with* Thol, Klaus) Universality classes for one-dimensional kinetic Ising models. **(82c:82063)**

Hasegawa, Hiroshi (*with* Nakagomi, Teruaki; Mabuchi, M.; Kondo, Kazuo) Nonequilibrium thermodynamics of lasing and bistable optical systems. **(82a:82022)**

Hemmer, P. C. *See* **Napiórkowski, M., (82h:82053)**

Higuchi, Yasunari Fluctuation of the interface of the two-dimensional Ising model. **(82e:82008)**

Hoegh-Krohn, Raphael *See* **Combe, Ph.; et al., (82e:81017)**

Holley, Richard A. (*with* Stroock, Daniel W.) Generalized Ornstein-Uhlenbeck processes and infinite particle branching Brownian motions. **(82g:60108)**

(*with* Stroock, Daniel W.) The D.L.R. conditions for translation invariant Gaussian measures on $\mathcal{S}'(\mathbf{R}^d)$. **(82g:60066)**

(Jäger, Willi) *See* **Biological growth and spread, (82c:92004)**

Kac, Mark Some mathematical problems in statistical mechanics. **(82i:82002)**

van Kampen, N. G. Itô versus Stratonovich. **(82c:82050)**

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Kesten, Harry (*with* Papanicolaou, George C.) A limit theorem for stochastic acceleration. **(82c:82013)**

Kinzel, Wolfgang *See* **Domany, Eytan, (82g:82038)**

Knast, K. (*with* Chmielowski, W.) Study of the higher-order correlation functions of number fluctuations in simple fluids with radial many-body interactions. (French summary) **(82m:82011)**

Kondo, Kazuo *See* **Hasegawa, Hiroshi; et al., (82a:82022)**

Kozak, John J. *See* **Walsh, Cecilia A., (82k:82048)**

Kurtz, Thomas G. Representations of Markov processes as multiparameter time changes. **(82d:60130)**

Laskin, N. V. *See* **Virčenko, Ju. P., (82h:82056)**

Levin, Steven L. Application of Dobrushin's uniqueness theorem to N-vector models. **(82i:82070)**

Lippner, Gy. First order stochastic dynamics of one-dimensional infinite point systems. **(82h:60117)**

Lobb, C. J. (*with* Frank, D. J.; Tinkham, M.) Percolative conduction in anisotropic media: a renormalization-group approach. **(82c:82070)**

Mabuchi, M. *See* **Hasegawa, Hiroshi; et al., (82a:82022)**

Mackiv, R. S. *See* **Gončar, M. S., (82h:81059)**

Major, Péter (*with* Szász, Domokos) On the effect of collisions on the motion of an atom in $\mathbf{R}^1$. **(82i:82012)**

★Multiple Wiener-Itô integrals. **(82i:60099)**

Mališev, P. V. Mathematical description of the evolution of the classical infinite system. (Russian. English summary) **(82e:82003)**

Malyšev, V. A. Complete cluster expansions for weakly coupled Gibbs random fields. **(82d:82019)**

(*with* Petrova, E. N.) Duality transformations of Gibbs random fields. (Russian) **(82j:82012)**

Martin-Löf, Anders ★Statistical mechanics and the foundations of thermodynamics. **(82i:82001)**

Mascolo, Elvira *See* **De Dominicis, Rodolfo, (82j:60034)**

McDonald, John N. (*with* Weiss, N. A.) A system of Markov processes with random lifetimes. **(82j:60131)**

Minlos, R. A. *See* **Abdulla-Zadeh, F. H.; et al., (82f:82005)**

Nahapet'jan, B. S. On a weak dependence criterion. (Russian. English summary) **(82h:60067)**

Naimžanov, A. Central limit theorem for the hierarchical Dyson model for small β. (Russian) **(82d:82012)**

Nakagomi, Teruaki *See* **Hasegawa, Hiroshi; et al., (82a:82022)**

Napiórkowski, M. (*with* Hemmer, P. C.) Correlated percolation on a quadratic lattice. **(82h:82053)**

Nguyen, Xuan-Xanh Ergodic theorems for subadditive spatial processes. **(82c:60056)**

Papanicolaou, George C. *See* **Kesten, Harry, (82c:82013)**

Park, Yong Moon *See* **Fröhlich, Jürg, (82g:82006)**

Petrova, E. N. *See* **Malyšev, V. A., (82j:82012)**

Pogosjan, S. K. *See* **Abdulla-Zadeh, F. H.; et al., (82f:82005)**

Rechester, A. B. (*with* Rosenbluth, M. N.; White, Roscoe Beryl) Fourier-space paths applied to the calculation of diffusion for the Chirikov-Taylor model. **(82d:82063)**

Rodriguez, R. *See* **Combe, Ph.; et al., (82e:81017)**

Rosenbluth, M. N. *See* **Rechester, A. B.; et al., (82d:82063)**

(Rost, Hermann) *See* **Biological growth and spread, (82c:92004)**

Sampath, G. *See* **Srinivasan, S. K., (82m:60109)**

Schack, B. Random fields as fixed points of stochastic operators. (Russian) **(82i:60101)**

Shiga, Tokuzo (*with* Shimizu, Akinobu) Infinite-dimensional stochastic differential equations and their applications. **(82i:60110)**

Shimizu, Akinobu *See* **Shiga, Tokuzo, (82i:60110)**

Sinaĭ, Ja. G. ★Теория фазовых переходов. (Russian) [Theory of phase transitions] **(82m:82020)**

See also **Bunimovič, L. A., (82m:82007)**

Sirugue, M. *See* **Combe, Ph.; et al., (82e:81017)**

Sirugue-Collin, M. *See* **Combe, Ph.; et al., (82e:81017)**

Souillard, Bernard *See* **Aizenman, Michael; et al., (82h:82048)**

Srinivasan, S. K. (*with* Sampath, G.) On a cumulative process resulting from interacting renewal processes and its applications. **(82m:60109)**

Stroock, Daniel W. *See* **Holley, Richard A., (82g:60066)** *and* **(82g:60108)**

Swendsen, Robert H. Dynamics of random sequential adsorption. **(82g:60025)**

Szász, Domokos *See* **Major, Péter, (82i:82012)**

(Tautu, Petre) *See* **Biological growth and spread, (82c:92004)**

Thol, Klaus *See* **Haake, Fritz, (82c:82063)**

Tinkham, M. *See* **Lobb, C. J.; et al., (82c:82070)**

(Tomkó, József) *See* **Point processes and queueing problems, (82f:60006)**

Tresser, C. (*with* Brot, C.; Coste, Jean) Random walks with sign reversals and the intrinsic angular momentum behaviour on lattices. (French summary) **(82c:82103)**

Umirbekova, L. On the existence, uniqueness and analyticity of a Gibbs perturbation of an independent random field with infinite potential. (Russian) **(82j:82020)**

Vanheuverzwijn, Paul A note on the stochastic lattice-gas model. **(82d:82016)**

Virčenko, Ju. P. (*with* Laskin, N. V.) Divergences in the construction of kinetic equations. (Russian. English summary) **(82h:82056)**

Vologodskiĭ, A. V. *See* **Anšelevič, V. V., (82k:82002)** *and* **(82k:82057)**

Walsh, Cecilia A. (*with* Kozak, John J.) Exact algorithm for d-dimensional walks on finite and infinite lattices with traps. **(82k:82048)**

Weiss, N. A. *See* **McDonald, John N., (82j:60131)**

White, Roscoe Beryl *See* **Rechester, A. B.; et al., (82d:82063)**

Biological growth and spread ★Biological growth and spread. **(82c:92004)**

Colloquia Mathematica Societatis János Bolyai ★Point processes and queueing problems. **(82f:60006)**

Colloquium:

Point Processes and Queueing Problems ★Point processes and queueing problems. **(82f:60006)**

Conference:

Models of Biological Growth and Spread ★Biological growth and spread. **(82c:92004)**

Heidelberg ★Biological growth and spread. **(82c:92004)**

Itogi Nauki i Tehniki ★Теория вероятностей. Математическая статистика. Теоретическая кибернетика. Том 18. (Russian) [Probability theory. Mathematical statistics. Theoretical cybernetics. Vol. 18] **(82f:60003)**

Keszthely ★Point processes and queueing problems. **(82f:60006)**

Mathematical statistics ★Теория вероятностей. Математическая статистика. Теоретическая кибернетика. Том 18. (Russian) [Probability theory. Mathematical statistics. Theoretical cybernetics. Vol. 18] **(82f:60003)**

Point processes and queueing problems ★Point processes and queueing problems. **(82f:60006)**

Probability theory. Mathematical statistics. Theoretical cybernetics ★Теория вероятностей. Математическая статистика. Теоретическая кибернетика. Том 18. (Russian) [Probability theory. Mathematical statistics. Theoretical cybernetics. Vol. 18] **(82f:60003)**

Statistical mechanics ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**

Stochastic processes and statistical mechanics in open systems ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**

Symposium:

Stochastic Processes and Statistical Mechanics in Open Systems ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**

Theoretical cybernetics ★Теория вероятностей. Математическая статистика. Теоретическая кибернетика. Том 18. (Russian) [Probability theory. Mathematical statistics. Theoretical cybernetics. Vol. 18] **(82f:60003)**

60K99 None of the above, but in this section

Hamada, Yoshiyasu The influence of external noise on a marginal or a critical equilibrium point. **82m:60128**

Ismail, Mourad E. H. (*with* Theodorescu, Radu) Asymptotic and explicit formulae for a non-Markovian model with linear transition rule. (German and French summaries) **82d:60194**
Kalašnikov, V. V. Estimates of the stability of innovations processes. **82b:60127**
Ramakrishnan, Aliadi Duality in stochastic processes. **82k:60217**
Theodorescu, Radu *See* **Ismail, Mourad E. H., 82d:60194**

secondary classifications:

Anis, A. A. (*with* Gharib, M.) On the variance of the maximum of partial sums of *n*-exchangeable random variables with applications. **(82e:60056)**
Bastin, G. Stochastic parameter estimation of a steady-state groundwater flow model. **(82a:76078)**
Burtin, Ju. D. On a simple formula for random mappings and its applications. **(82a:05076)**
Dalal, S. R. (*with* Hall, Gaineford J., Jr.) On approximating parametric Bayes models by nonparametric Bayes models. **(82c:62011)**
Foguel, Shaul R. The Hopf decomposition of a Riesz space. **(82m:47028)**
Gharib, M. *See* **Anis, A. A., (82e:60056)**
Gusak, D. V. Distribution of the limit value of a jump for compound Poisson processes on a Markov chain. (Russian) **(82c:60122)**
Haigh, John Random exchanges of information. **(82j:94029)**
Hall, Gaineford J., Jr. *See* **Dalal, S. R., (82c:62011)**
Hughes, Barry D. *See* **Shlesinger, Michael F., (82m:82019)**
MacQueen, J. Circuit processes. **(82j:60121)**
Ruohonen, Matti On the weak convergence of alternating processes. **(82m:60071)**
Shlesinger, Michael F. (*with* Hughes, Barry D.) Analogs of renormalization group transformations in random processes. **(82m:82019)**
Surgailis, D. Convergence of sums of nonlinear functions of moving averages to self-similar processes. (Russian) **(82k:60071)**

62–XX STATISTICS {For numerical methods, see 65U05.}

62–01 Elementary exposition, textbooks

Allende Alonso, Sira (*with* Bouza Herrera, Carlos) Determination of optimal policies for a system described by a noncooperative game. (Spanish) **82e:62001**
Arnold, Steven F. ★The theory of linear models and multivariate analysis. **82g:62001**
Arthanari, T. S. (*with* Dodge, Yadolah) ★Mathematical programming in statistics. **82f:62001**
Beaumont, G. P. ★Intermediate mathematical statistics. **82e:62002**
Bouza Herrera, Carlos *See* **Allende Alonso, Sira, 82e:62001**
Burdelski, Thomas ★Univariable Zeitreihenanalyse und kurzfristige Prognose. (German) [One-variable time series analysis and short term forecasting] **82i:62001**
Cochran, William G. *See* **Snedecor, George W., 82g:62003**
Dhrymes, Phoebus J. ★Distributed lags. **82g:62002**
Dodge, Yadolah *See* **Arthanari, T. S., 82f:62001**
Draper, Norman Richard (*with* Smith, Harry) ★Applied regression analysis. **82f:62002**
Dudewicz, Edward J. ★Introduction to statistics and probability. **82c:62001a**
★Solutions in statistics and probability. **82c:62001b**
Edwards, Allen L. ★Multiple regression and the analysis of variance and covariance. **82a:62001**
Efron, Bradley Computers and the theory of statistics: thinking the unthinkable. **82b:62001**
Gottinger, Hans W. ★Elements of statistical analysis. **82d:62001**
Hartmann, Wolfgang ★Geometrische Modelle zur Analyse empirischer Daten. (German) [Geometric models for the analysis of empirical data] **82a:62002**
Henn, Rudolf (*with* Kischka, Peter) ★Statistik: Theorie und Anwendungen in den Wirtschaftswissenschaften. Teil 1. (German) [Statistics: theory and applications in economics. Part 1] **82c:62002**
(Hogg, Robert V.) *See* **Modern statistics: methods and applications, 82c:62003**
Hunter, Douglas E. How to cook a Bayes. **82d:62002**
Kischka, Peter *See* **Henn, Rudolf, 82c:62002**
Kudrjavcev, B. M. ★Статистические методы исследования в практике. (Russian) [Statistical research methods in practice] **82b:62002**
Plackett, R. L. ★The analysis of categorical data. **82m:62001**
(Rao, C. Radhakrishna) *See* **Arthanari, T. S.; et al., 82f:62001**
Serfling, Robert J. ★Approximation theorems of mathematical statistics. **82a:62003**
Singh, Jagbir Minimum variance unbiased estimation of probability densities. **82d:62003**
Smith, Harry *See* **Draper, Norman Richard, 82f:62002**
Snedecor, George W. (*with* Cochran, William G.) ★Statistical methods. **82g:62003**
Witting, Hermann ★Mathematische Statistik. (German) [Mathematical statistics] **82e:62003**
Wonnacott, Ronald J. *See* **Wonnacott, Thomas H., 82f:62003**
Wonnacott, Thomas H. (*with* Wonnacott, Ronald J.) ★Regression: a second course in statistics. **82f:62003**
Zacks, Shelemyahu ★Parametric statistical inference. **82k:62001**
Modern statistics: methods and applications ★Modern statistics: methods and applications. **82c:62003**
Proceedings of Symposia in Applied Mathematics ★Modern statistics: methods and applications. **82c:62003**
San Antonio, Tex. ★Modern statistics: methods and applications. **82c:62003**

secondary classifications:

Baille, Alain (*with* Van Cutsem, Bernard) ★Problèmes de probabilités et de statistiques. (French) [Problems of probability and statistics] **(82g:60001)**
Beyer, Otfried (*with* Hackel, Horst; Pieper, Volkmar; Tiedge, Jürgen) ★Wahrscheinlichkeitsrechnung und mathematische Statistik. (German) [Probability theory and mathematical statistics] **(82k:60002a)**
(*with* Hackel, Horst; Pieper, Volkmar; Tiedge, Jürgen) ★Wahrscheinlichkeitsrechnung und mathematische Statistik. (German) [Probability theory and mathematical statistics] **(82k:60002b)**
Derman, Cyrus *See* **Olkin, Ingram; et al., (82c:60002)**
Freudenthal, Hans ★Wahrscheinlichkeit und Statistik. (German) [Probability and statistics] **(82j:60002)**
Gleser, Leon Jay *See* **Olkin, Ingram; et al., (82c:60002)**
Hackel, Horst *See* **Beyer, Otfried; et al., (82k:60002a)** *and* **(82k:60002b)**
Lloyd, Emlyn H. ★Handbook of applicable mathematics. Vol. II. **(82d:60001)**
Olkin, Ingram (*with* Gleser, Leon Jay; Derman, Cyrus) ★Probability models and applications. **(82c:60002)**
Pieper, Volkmar *See* **Beyer, Otfried; et al., (82k:60002a)** *and* **(82k:60002b)**
Pugačev, V. S. ★Теория вероятностей и математическая статистика. (Russian) [Probability theory and mathematical statistics] **(82a:60003)**
Randles, Ronald H. (*with* Wolfe, Douglas A.) ★Introduction to the theory of nonparametric statistics. **(82c:62071)**
Sorenson, Harold W. ★Parameter estimation. **(82c:93021)**
Tiedge, Jürgen *See* **Beyer, Otfried; et al., (82k:60002a)** *and* **(82k:60002b)**
Van Cutsem, Bernard *See* **Baille, Alain, (82g:60001)**
Wolfe, Douglas A. *See* **Randles, Ronald H., (82c:62071)**
Handbook of Applicable Mathematics *See* **Lloyd, Emlyn H., (82d:60001)**

62–02 Advanced exposition (research surveys, monographs, etc.)

Das, Mihir Nath (*with* Giri, Narayan C.) ★Design and analysis of experiments. **82k:62002**
(Diday, E.) *See* **Data analysis and informatics, 82f:62004**
Giri, Narayan C. *See* **Das, Mihir Nath, 82k:62002**
Grenander, Ulf ★Abstract inference. **82g:62004**
Hackl, Peter ★Testing the constancy of regression models over time. **82g:62005**
Has'minskiĭ, R. Z. *See* **Ibragimov, I. A., 82g:62006**
Ibragimov, I. A. (*with* Has'minskiĭ, R. Z.) ★Statistical estimation. **82g:62006**
See also **Studies in mathematical statistics, 82i:62002**
(Kotz, Samuel) *See* **Ibragimov, I. A.; et al., 82g:62006**
(Lebart, L.) *See* **Data analysis and informatics, 82f:62004**
(Nikulin, M. S.) *See* **Studies in mathematical statistics, 82i:62002**
(Pagès, J. P.) *See* **Data analysis and informatics, 82f:62004**
(Révész, Pál) *See* **Symposium: Pannonian, Mathematical Statistics, 82f:62005**
Romanowski, M. ★Random errors in observations and the influence of modulation on their distribution. **82a:62004**
(Schmetterer, Leopold) *See* **Symposium: Pannonian, Mathematical Statistics, 82f:62005**
(Tomassone, R.) *See* **Data analysis and informatics, 82f:62004**
(Zolotarev, V. M.) *See* **Symposium: Pannonian, Mathematical Statistics, 82f:62005**
Bad Tatzmannsdorf ★The First Pannonian Symposium on Mathematical Statistics. **82f:62005**
Data analysis and informatics ★Data analysis and informatics. **82f:62004**
Mathematical statistics ★The First Pannonian Symposium on Mathematical Statistics. **82f:62005**
Studies in mathematical statistics ★Исследования по математической статистике. V. (Russian) [Studies in mathematical statistics. V] **82i:62002**
Symposium:
Data Analysis and Informatics ★Data analysis and informatics. **82f:62004**
Pannonian, Mathematical Statistics ★The First Pannonian Symposium on Mathematical Statistics. **82f:62005**
Versailles ★Data analysis and informatics. **82f:62004**

secondary classifications:

Miller, Kenneth S. ★Hypothesis testing with complex distributions. **(82b:62026)**
Rust, A., III *See* **Tsokos, Chris P., (82e:62061)**
Tsokos, Chris P. (*with* Rust, A., III) Recent developments in nonparametric estimation of probability density. **(82e:62061)**

62–03 Historical (must also be assigned at least one classification number from Section 01)

Geisser, Seymour The contributions of Sir Harold Jeffreys to Bayesian inference. (*See* **82d:62170**)
Good, Irving J. The contributions of Jeffreys to Bayesian statistics. (*See* **82d:62170**)
Harter, H. Leon Early history of multiple comparison tests. (*See* **82f:62102**)
(Jeffreys, Harold) *See* **Geisser, Seymour,** (*See* **82d:62170**); **Good, Irving J.,** (*See* **82d:62170**) *and* **Lindley, Dennis V.,** (*See* **82d:62170**)
Lindley, Dennis V. Jeffreys's contribution to modern statistical thought. (*See* **82d:62170**)
(Nowak, Horst) *See* **Robust methods, 82i:62003**
Stigler, Stephen M. Gauss and the invention of least squares. **82g:62007**
(Zentgraf, Reinhard) *See* **Robust methods, 82i:62003**
Bad Nauheim ★Robuste Verfahren. (German) [Robust methods] **82i:62003**
Biometrics ★Robuste Verfahren. (German) [Robust methods] **82i:62003**
Colloquium:
Biometric ★Robuste Verfahren. (German) [Robust methods] **82i:62003**
Robust methods ★Robuste Verfahren. (German) [Robust methods] **82i:62003**

secondary classifications:

Anderson, T. W. (*with* Chung, Kai Lai; Lehmann, E. L.) Pao Lu Hsü: 1909–1970. **(82h:01042a)**
Hsü's work in multivariate analysis. **(82h:01042c)**
(*with* Chung, Kai Lai; Lehmann, E. L.) Pao Lu Hsü: 1910–1970. (Chinese) **(82h:01042f)**
See also **Miller, Rupert G., Jr., (82h:01042e)**
Chernoff, Herman Henry Scheffé (1907–1977). **(82c:01046)**

Chung, Kai Lai *See* **Anderson, T. W.; et al., (82h:01042a); (82h:01042f)** *and* **Miller, Rupert G., Jr., (82h:01042e)**
Hald, A. T. N. Thiele's contributions to statistics. (French summary) **(82m:01060)**
(Hsü, Pao Lu) *See* **Anderson, T. W.; et al., (82h:01042a); Lehmann, E. L., (82h:01042b); Anderson, T. W., (82h:01042c); (82h:01042f)** *and* **Lehmann, E. L., (82h:01042g)**
Ikeda, Sadao Professor Junjiro Ogawa. **(82g:01054)**
Lehmann, E. L. Hsü's work on inference. **(82h:01042b)**
The work of Pao Lu Hsü on statistical inference. (Chinese) **(82h:01042g)**
See also **Anderson, T. W.; et al., (82h:01042a); (82h:01042f)** *and* **Miller, Rupert G., Jr., (82h:01042e)**
Lindley, Dennis V. L. J. Savage—his work in probability and statistics. **(82e:01096)**
Miller, Rupert G., Jr. Editorial note on: "Pao Lu Hsü: 1909–1970" [Ann. Statist. **7** (1979), no. 3, 467–470; MR 82h:01042a] by T. W. Anderson, K. L. Chung and E. L. Lehmann. **(82h:01042e)**
Neyman, Jerzy Origins of statistical mathematics. (Polish) **(82i:01038)**
(Ogawa, Junjiro) *See* **Ikeda, Sadao, (82g:01054)**
(Pearson, Egon S.) *See* **Pearson, Karl, (82i:01023)**
Pearson, Karl ★The history of statistics in the 17th and 18th centuries against the changing background of intellectual, scientific and religious thought. **(82i:01023)**
(Savage, Leonard Jimmie) *See* **Lindley, Dennis V., (82e:01096)**
(Scheffé, Henry) *See* **Chernoff, Herman, (82c:01046)**
(Smith, Robert Henry) *See* **Stigler, Stephen M., (82c:01032)**
Stigler, Stephen M. Studies in the history of probability and statistics. XXXVIII. R. H. Smith, a Victorian interested in robustness. **(82c:01032)**
(Thiele, T. N.) *See* **Hald, A., (82m:01060)**
Bibliography:
Hsü, Pao Lu *See* **Anderson, T. W.; et al., (82h:01042a)** *and* **(82h:01042f)**
Ogawa, Junjiro *See* **Ikeda, Sadao, (82g:01054)**
Biography:
Hsü, Pao Lu *See* **Anderson, T. W.; et al., (82h:01042a)**
Ogawa, Junjiro *See* **Ikeda, Sadao, (82g:01054)**
Obituary:
Hsü, Pao Lu *See* **Anderson, T. W.; et al., (82h:01042f)**
Savage, Leonard Jimmie *See* **Lindley, Dennis V., (82e:01096)**
Scheffé, Henry *See* **Chernoff, Herman, (82c:01046)**
Studies in the history of probability and statistics *See* **Stigler, Stephen M., (82c:01032)**

62–04 Explicit machine computation and programs (not the theory of computation or programming)

Martynov, G. V. Calculation of the function of normal distribution. (Russian) **82b:62003**
Press, S. James Bayesian computer programs. (*See* **82d:62170**)
(Rjabuškin, T. V.) *See* **Algorithms and software for applied statistical analysis, 82d:62004**
Algorithms and software for applied statistical analysis ★Алгоритмическое и программное обеспечение прикладного статистического анализа. (Russian) [Algorithms and software for applied statistical analysis] **82d:62004**
Statistical analysis ★Алгоритмическое и программное обеспечение прикладного статистического анализа. (Russian) [Algorithms and software for applied statistical analysis] **82d:62004**

secondary classifications:

Brandt, Siegmund ★Datenanalyse. (German) [Data analysis] **(82k:62048)**
Dutter, Rudolf Rechentechinsche Aspekte der robusten Statistik. (*See* **82i:62003**)
Pollard, J. H. ★Numerical and statistical techniques. **(82j:65031)**

62–06 Proceedings, conferences, etc.

(Adke, S. R.) *See* **Special issue: Huzurbazar felicitation volume, 82a:62008**
(Anderson, Oliver D.) *See* **Time series analysis, 82k:62005**
(Bernardo, J. M.) *See* **Bayesian statistics, 82k:62003**
(DeGroot, Morris H.) *See* **Bayesian statistics, 82k:62003**
(Gani, J.) *See* **Essays in statistical science, 82i:62004**
(Hannan, E. J.) *See* **Essays in statistical science, 82i:62004**
(Hayakawa, Takesi) *See* **Essays: Probability and statistics, 82a:62005**
(Hudimoto, Hirosi) *See* **Essays: Probability and statistics, 82a:62005**
(Huzurbazar, Vasant S.) *See* **Special issue: Huzurbazar felicitation volume, 82a:62008**
(Ikeda, Sadao) *See* **Essays: Probability and statistics, 82a:62005**
(Krug, G. K.) *See* **Automation of scientific investigations, 82d:62005**
(Lindley, Dennis V.) *See* **Bayesian statistics, 82k:62003**
(Moran, P. A. P.) *See* **Essays in statistical science, 82i:62004**
(Ogawa, Junjiro) *See* **Essays: Probability and statistics, 82a:62005**
(Okamoto, Masashi) *See* **Essays: Probability and statistics, 82a:62005**
(Perryman, Marlin Ray) *See* **Time series analysis, 82k:62005**
(Raoult, Jean-Pierre) *See* **Nonparametric asymptotic statistics, 82a:62007**
(Siotani, Minoru) *See* **Essays: Probability and statistics, 82a:62005**
(Smith, A. F. M.) *See* **Bayesian statistics, 82k:62003**
(Yamamoto, Sumiyasu) *See* **Essays: Probability and statistics, 82a:62005**
Alexandria, Va. ★Environmetrics 81: selected papers. **82k:62004**
Automation of scientific investigations ★Автоматизация научных исследований. (Russian) [Automation of scientific investigations] **82d:62005**
Bayesian statistics ★Bayesian statistics. **82k:62003**
Birthday:
Huzurbazar, Vasant Shankar ★Professor Huzurbazar felicitation volume. **82a:62008**
Business statistics ★1979 Proceedings of the Business and Economic Statistics Section, American Statistical Association. **82c:62004e**
Conference:
Design of Experiments in Army Research, Development and Testing ★Proceedings of the Twenty-Sixth Conference on the Design of Experiments in Army Research, Development and Testing. **82g:62008**
Conference: (*continued*)
Environmetrics ★Environmetrics 81: selected papers. **82k:62004**
Statistics ★Statistique non paramétrique asymptotique. (French) [Nonparametric asymptotic statistics] **82a:62007**
Time Series Analysis ★Time series analysis. **82k:62005**
Design of experiments ★Proceedings of the Twenty-Sixth Conference on the Design of Experiments in Army Research, Development and Testing. **82g:62008**
Economic statistics ★1979 Proceedings of the Business and Economic Statistics Section, American Statistical Association. **82c:62004e**
Environmetrics 81: selected papers ★Environmetrics 81: selected papers. **82k:62004**
Essays:
Probability and statistics ★Essays in probability and statistics. **82a:62005**
Essays in statistical science ★Essays in statistical science. **82i:62004**
Estimation of time series analysis—theory and applications ★Estimation of time series analysis—theory and applications. (Japanese) **82i:62005**
Houston, Tex. ★Time series analysis. **82k:62005**
Las Cruces, N.M. ★Proceedings of the Twenty-Sixth Conference on the Design of Experiments in Army Research, Development and Testing. **82g:62008**
Mathematical statistics ★Mathematical statistics. **82a:62006**
Meeting:
American Statistical Association, Business and Economic Statistics Section ★1979 Proceedings of the Business and Economic Statistics Section, American Statistical Association. **82c:62004e**
American Statistical Association, Social Statistics Section ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004a**
★1979 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004d**
American Statistical Association, Statistical Computing Section ★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004b**
★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004c**
Bayesian Statistics ★Bayesian statistics. **82k:62003**
Time Series ★Time series analysis. **82k:62005**
New Delhi ★Proceedings of the 41st Session of the International Statistical Institute. Vol. 1. **82d:62006a**
★Proceedings of the 41st Session of the International Statistical Institute. Vol. 2. **82d:62006b**
★Proceedings of the 41st Session of the International Statistical Institute. Vol. 3. **82d:62006c**
Nonparametric asymptotic statistics ★Statistique non paramétrique asymptotique. (French) [Nonparametric asymptotic statistics] **82a:62007**
Probability ★Essays in probability and statistics. **82a:62005**
Proceedings:
Business and Economic Statistics Section, American Statistical Association ★1979 Proceedings of the Business and Economic Statistics Section, American Statistical Association. **82c:62004e**
Conference on the Design of Experiments in Army Research, Development and Testing ★Proceedings of the Twenty-Sixth Conference on the Design of Experiments in Army Research, Development and Testing. **82g:62008**
Session of the International Statistical Institute ★Proceedings of the 41st Session of the International Statistical Institute. Vol. 1. **82d:62006a**
★Proceedings of the 41st Session of the International Statistical Institute. Vol. 2. **82d:62006b**
★Proceedings of the 41st Session of the International Statistical Institute. Vol. 3. **82d:62006c**
Social Statistics Section, American Statistical Association ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004a**
★1979 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004d**
Statistical Computing Section, American Statistical Association ★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004b**
★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004c**
Rouen ★Statistique non paramétrique asymptotique. (French) [Nonparametric asymptotic statistics] **82a:62007**
San Diego, Calif. ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004a**
★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004b**
Seminar:
Mathematical Statistics ★Séminaire de Statistique Mathématique. (French) [Seminar on Mathematical Statistics] **82c:62005**
Social statistics ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004a**
★1979 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004d**
Special issue:
Huzurbazar felicitation volume ★Professor Huzurbazar felicitation volume. **82a:62008**
Statistical computing ★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004b**
★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004c**
Statistical estimation ★Statistical estimation. (Japanese) **82a:62009**
Statistics ★Essays in probability and statistics. **82a:62005**
★Proceedings of the 41st Session of the International Statistical Institute. Vol. 1. **82d:62006a**
★Proceedings of the 41st Session of the International Statistical Institute. Vol. 2. **82d:62006b**
★Proceedings of the 41st Session of the International Statistical Institute. Vol. 3. **82d:62006c**

★Mathematical statistics. **82a:62006**

★Séminaire de Statistique Mathématique. (French) [Seminar on Mathematical Statistics] **82c:62005**

★Statistique non paramétrique asymptotique. (French) [Nonparametric asymptotic statistics] **82a:62007**

Symposium:

Estimation of Time Series Analysis—Theory and Applications ★Estimation of time series analysis—theory and applications. (Japanese) **82i:62005**

Statistical Estimation ★Statistical estimation. (Japanese) **82a:62009**

Time series analysis ★Time series analysis. **82k:62005**

Valencia ★Bayesian statistics. **82k:62003**

Washington, D.C. ★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **82c:62004c**

★1979 Proceedings of the Social Statistics Section, American Statistical Association. **82c:62004d**

★1979 Proceedings of the Business and Economic Statistics Section, American Statistical Association. **82c:62004e**

secondary classifications:

(Bereanu, Bernard) *See* **Proceedings: Conference on Probability Theory, (82i:60002)**

(Gani, J.) *See* **Contributions to probability, (82f:60005)**

(Garmaš, V. A.) *See* **Methods of information transmission and processing, (82a:94002)**

(Grigorescu, Şerban) *See* **Proceedings: Conference on Probability Theory, (82i:60002)**

(Henn, Rudolf) *See* **Meeting: Oberwolfach, Operations Research, (82a:90007)**

(Iosifescu, Marius) *See* **Proceedings: Conference on Probability Theory, (82i:60002)**

(Künzi, Hans Paul) *See* **Meeting: Oberwolfach, Operations Research, (82a:90007)**

(Lazrieva, N. L.) *See* **All-Union Colloquium: Probability Theory and Mathematical Statistics, (82i:60001)**

(Lukacs, Eugene) *See* **Contributions to probability, (82f:60005)**

(Pinsker, M. S.) *See* **Methods of information transmission and processing, (82a:94002)**

(Postelnicu, Tiberiu) *See* **Proceedings: Conference on Probability Theory, (82i:60002)**

(Rohatgi, V. K.) *See* **Contributions to probability, (82f:60005)**

(Savage, Leonard Jimmie) *See* **Writings of Leonard Jimmie Savage—a memorial selection, (82k:01044)**

(Schubert, Horst) *See* **Meeting: Oberwolfach, Operations Research, (82a:90007)**

(Šervašidze, T. L.) *See* **All-Union Colloquium: Probability Theory and Mathematical Statistics, (82i:60001)**

All-Union Colloquium:

Probability Theory and Mathematical Statistics ★XV Всесоюзная Школа-Коллоквиум по Теории Вероятностей и Математической Статистике. (Russian) [Fifteenth All-Union School-Colloquium on Probability Theory and Mathematical Statistics] **(82i:60001)**

Bakuriani ★XV Всесоюзная Школа-Коллоквиум по Теории Вероятностей и Математической Статистике. (Russian) [Fifteenth All-Union School-Colloquium on Probability Theory and Mathematical Statistics] **(82i:60001)**

Braşov ★Proceedings of the Sixth Conference on Probability Theory. **(82i:60002)**

Conference:

Oberwolfach, Operations Research ★IX. Oberwolfach Conference on Operations Research. **(82a:90007)**

Probability Theory ★Proceedings of the Sixth Conference on Probability Theory. **(82i:60002)**

Contributions to probability ★Contributions to probability. **(82f:60005)**

Information processing ★Методы передачи и обработки информации. (Russian) [Methods of information transmission and processing] **(82a:94002)**

Methods of information transmission and processing ★Методы передачи и обработки информации. (Russian) [Methods of information transmission and processing] **(82a:94002)**

Meeting:

Oberwolfach, Operations Research ★IX. Oberwolfach Conference on Operations Research. **(82a:90007)**

Oberwolfach ★IX. Oberwolfach Conference on Operations Research. **(82a:90007)**

Operations research ★IX. Oberwolfach Conference on Operations Research. **(82a:90007)**

Operations Research Verfahren ★IX. Oberwolfach Conference on Operations Research. **(82a:90007)**

Probability ★Contributions to probability. **(82f:60005)**

Proceedings:

Conference on Probability Theory ★Proceedings of the Sixth Conference on Probability Theory. **(82i:60002)**

Writings of Leonard Jimmie Savage—a memorial selection ★The writings of Leonard Jimmie Savage—a memorial selection. **(82k:01044)**

62–07 Data analysis

Drouet d'Aubigny, Gérard A. A probabilistic look at ordinal methods in data analysis. **82f:62006**

secondary classifications:

Brannigan, M. An adaptive piecewise polynomial curve fitting procedure for data analysis. **(82h:62098)**

Gunst, Richard F. (*with* Mason, Robert Lee) ★Regression analysis and its application. **(82a:62091)**

Hayashi, Chikio Minimum dimension analysis MDA-OR and MDA-UO. (*See* **82a:62005**)

Lehert, P. Clustering by connected components in $O(n)$ expected time. (French summary) **(82k:68016)**

Mason, Robert Lee *See* **Gunst, Richard F., (82a:62091)**

62Axx Foundations

Aïvazjan, S. A. Statistique mathématique appliquée et problème de la stabilité des inférences statistiques. (*See* **82f:62004**)

62A05 Invariance and group considerations

Melendreras Gimeno, Ramiro Invariance in minimal information. (Spanish) **82g:62009**

62A10 The likelihood approach

Barndorff-Nielsen, Ole Likelihood prediction. **82h:62001**

Conditionality resolutions. **82k:62006**

Gong, Gail (*with* Samaniego, Francisco J.) Pseudomaximum likelihood estimation: theory and applications. **82g:62010**

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Richter, Matthias Dominierbarkeit Gaußscher statistischer Strukturen in Hilberträumen und Berechnung der Likelihood-Funktion. **(82e:60007)**

62A15 The Bayesian approach

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Dickey, James M. Approximate coherence for regression model inference—with a new analysis of Fisher's Broadbalk Wheatfield example. (*See* **82d:62170**)

Dumas, Maurice Sur la logique bayésienne. **82c:62006**

Geisser, Seymour A predictivistic primer. (*See* **82d:62170**)

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Jaynes, Edwin T. Marginalization and prior probabilities. (*See* **82d:62170**)

O'Hagan, A. A moment of indecision. **82f:62009**

Poltronieri, Jorge Bayesian decision. I. (Spanish) **82i:62006**

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Scozzafava, Romano Bayesian inference and inductive "logic". (Italian) **82c:62007**

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Zhou, Yuan Quan The prior distribution without prior knowledge. (Chinese) **82e:62006**

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secondary classifications:

Dickey, James M. *See* **Kadane, Joseph B.; et al., (82a:62092)**

Domotor, Zoltan Probability kinematics and representation of belief change. **(82c:03034)**

Dorling, Jon Bayesian personalism, the methodology of scientific research programmes, and Duhem's problem. **(82e:00022)**

Eddy, William F. *See* **Geisser, Seymour, (82d:62061a)** *and* **(82d:62061b)**

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(Jeffreys, Harold) *See* **Bayesian analysis in econometrics and statistics, (82d:62170); Geisser, Seymour, (*See* 82d:62170)** *and* **Good, Irving J., (*See* 82d:62170)**

Kadane, Joseph B. (*with* Dickey, James M.; Winkler, Robert L.; Smith, Wayne S.; Peters, Stephen C.) Interactive elicitation of opinion for a normal linear model. **(82a:62092)**

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Nomakuchi, Kentaro Sufficient condition for existence of conditional qualitative probability. **(82h:60003)**
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Quesada Paloma, Vicente Nonparametric Bayesian decision processes. (Spanish. French summary) **(82d:62017)**
Shafer, Glenn Constructive probability. **(82j:60006)**
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Williams, P. M. Bayesian conditionalisation and the principle of minimum information. **(82f:62016)**
Winkler, Robert L. *See* **Kadane, Joseph B.; et al., (82a:62092)**
(Zellner, Arnold) *See* **Bayesian analysis in econometrics and statistics, (82d:62170)**
Bayesian analysis in econometrics and statistics ★Bayesian analysis in econometrics and statistics. **(82d:62170)**
Econometrics ★Bayesian analysis in econometrics and statistics. **(82d:62170)**
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62A20 The classical approach

Holm, Sture On multiple test procedures. **82d:62009**
Sverdrup, Erling The logic of statistical inference: significance testing and decison theory. (French summary) **82i:62007**

62A25 The structural approach

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Dawid, A. Philip (*with* Guttman, Irwin) Conjugate Bayesian inference for structural models. **82i:62009**
Fraser, Donald Alexander Stuart ★Inference and linear models. **82g:62011**
Inference and the structural model for ANOVA and MANOVA. (*See* **82f:62102**) *See also* **Brenner, D.; et al., 82i:62008**
Guttman, Irwin *See* **Dawid, A. Philip, 82i:62009**
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62A30 The fiducial approach

Ferreira, P. E. (*with* Minder, Ch. E.) On a concept of ancillarity. **82h:62003**
Minder, Ch. E. *See* **Ferreira, P. E., 82h:62003**
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Bunke, Helga (*with* Bunke, Olaf) Randomization. Pro and contra. **82d:62010**
Bunke, Olaf *See* **Bunke, Helga, 82d:62010**
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Dawid, A. Philip Conditional independence for statistical operations. **82c:62009**
Garber, Daniel Discussion: Field and Jeffrey conditionalization. **82g:62012**
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Hacking, Ian Strange expectations. **82f:62010**
Han, Chien Pai *See* **Bancroft, T. A., 82j:62003**
Jumarie, Guy Sur une nouvelle méthode d'introduction des facteurs de subjectivité dans les problèmes d'estimation statistique. (English summary) **82f:62011**
Kempthorne, Oscar Sampling inference, experimental inference and observation inference. **82f:62012**
Kindler, Jürgen Statistische Entscheidungsprobleme mit nichtkompaktem Aktionenraum. (English summary) **82h:62008**
Kyburg, Henry E. Acts and conditional probabilities. **82h:62007**
Lefèvre, Claude *See* **de Palma, André, 82m:62004**
Lindley, Dennis V. (*with* Novick, Melvin R.) The role of exchangeability in inference. **82e:62007**
Martin, Jean-François Formalisation et étude de codages flous. (English summary) **82d:62011**
McConway, K. J. Marginalization and linear opinion pools. **82i:62011**
Novick, Melvin R. *See* **Lindley, Dennis V., 82e:62007**
de Palma, André (*with* Lefèvre, Claude) Simplification procedures for a probabilistic choice model. **82m:62004**
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Robinson, G. K. Conditional properties of statistical procedures for location and scale parameters. **82h:62008**
Robinson, John Optimal tests of significance. **82a:62013**

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Arnendt, Brad Is there a Dutch Book argument for probability kinematics? **(82m:03024)**
Bunge, Mario Four concepts of probability. **(82m:60002)**
Costantini, Domenico Inductive logic and inductive statistics. **(82e:03022)**
Dayton, Eric Inference and conditional knowledge. **(82k:03005)**
Domotor, Zoltan Probabilistic and causal dependence structures. **(82m:03025)**
Dorsett, Michael J. A review of data estimates and subjective probability. **(82d:62162)**
Finch, Peter D. Least squares description of a record as signal plus noise. **(82f:62134)**
Granger, C. W. J. Testing for causality: a personal viewpoint. **(82c:62145)**
Rosenkrantz, Roger D. Measuring truthlikeness. **(82a:03011)**
Vitjaev, E. E. Detection of regularities expressed by universal formulas. (Russian) **(82g:03034)**

62Bxx Sufficiency

62B05 Sufficient statistics and fields

Akahira, Masafumi (*with* Takeuchi, Kei) A note on prediction sufficiency (adequacy) and sufficiency. **82m:62005**
Bártfai, P. Characterizations by sufficient statistics. **82g:62013**
Basu, Debabrata (*with* Cheng, Shih Chuan) A note on sufficiency in coherent models. **82h:62009**
Brogini Bratti, Adriana Relations between sufficient statistics in the presence of a minimal sufficient statistics. (Italian. English summary) **82m:62006**
Cheng, Shih Chuan *See* **Basu, Debabrata, 82h:62009**
Decell, Henry P., Jr. Sufficient, almost sufficient statistics and applications. **82d:62012**
Ermakov, M. S. On sufficient statistics for families of distributions with densities of varying support. (Russian. English summary) **82d:62013**
Ghosh, J. K. (*with* Morimoto, H.; Yamada, Sakutarō) Neyman factorization and minimality of pairwise sufficient subfields. **82h:62010**
Morimoto, H. *See* **Ghosh, J. K.; et al., 82h:62010**
Takeuchi, Kei *See* **Akahira, Masafumi, 82m:62005**
Weiss, Lionel Asymptotic sufficiency in a class of nonregular cases. **82h:62011**
Yamada, Sakutarō *See* **Ghosh, J. K.; et al., 82h:62010**

secondary classifications:

Coberly, William A. *See* **Decell, Henry P., Jr.; et al., (82i:68055)**
Decell, Henry P., Jr. (*with* Odell, Patrick L.; Coberly, William A.) Linear dimension reduction and Bayes classification. **(82i:68055)**
Döhler, Raimund Dominierbarkeit und Suffizienz in der Sequentialanalyse. (English and Russian summaries) **(82f:62148)**
Kozek, Andrzej On two necessary σ-fields and on universal loss functions. **(82d:62072)**
Odell, Patrick L. *See* **Decell, Henry P., Jr.; et al., (82i:68055)**
Wright, A. L. Nonexistence of complete sufficient statistics for stationary k-state Markov chains, $k \geq 3$. **(82a:62134)**

62B10 Statistical information theory

Bernardo Herranz, José-Miguel A measure of the useful information given by an experiment. (Spanish. English summary) **82d:62014**
Asymptotic behavior of the information given by an experiment. (Spanish. English summary) **82f:62013**
Čencov, N. N. On basic concepts of mathematical statistics. **82c:62010**
DeGroot, Morris H. *See* **Goel, Prem K., 82m:62007**
Döhler, Raimund Fischersche Informationsmatrix bei sequentieller unabhängiger Stichprobennahme. **82e:62008**
Goel, Prem K. (*with* DeGroot, Morris H.) Information about hyperparameters in hierarchical models. **82m:62007**
Kandel, Abraham On the control and evaluation of uncertain processes. **82f:62014**
Kashyap, B. R. K. *See* **Mathur, K. C., 82f:62015**
Mathur, K. C. (*with* Kashyap, B. R. K.) On a class of probability distributions and its use in information theory. **82f:62015**
Torgersen, Erik N. Deviations from total information and from total ignorance as measures of information. **82k:62009**
Measures of information based on comparison with total information and with total ignorance. **82h:62012**
Williams, P. M. Bayesian conditionalisation and the principle of minimum information. **82f:62016**

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Bernardo Herranz, José-Miguel Expected information as expected utility. **(82a:62012)**
Dargahi-Noubary, G. R. (*with* Laycock, P. J.) Spectral ratio discriminants and information theory. **(82m:62211)**
Laycock, P. J. *See* **Dargahi-Noubary, G. R., (82m:62211)**
Melendreras Gimeno, Ramiro Invariance in minimal information. (Spanish) **(82g:62009)**
Morimune, Kimio Asymptotic expansions of the distribution of an improved limited information maximum likelihood estimator. **(82j:62017)**
Mugur-Schächter, Mioara Le concept nouveau de fonctionnelle d'opacité d'une statistique. Étude des relations entre la loi des grands nombres, l'entropie informationnelle et l'entropie statistique. **(82a:60012)**
Palmgren, Juni The Fisher information matrix for log linear models arguing conditionally on observed explanatory variables. **(82h:62089)**
Petrov, B. N. (*with* Ulanov, G. M.; Ul'janov, S. V.) Informativeness of signals and compression of controlled information processes. (Russian) **(82g:94003)**
Ulanov, G. M. *See* **Petrov, B. N.; et al., (82g:94003)**
Ul'janov, S. V. *See* **Petrov, B. N.; et al., (82g:94003)**

62B15 Comparison of experiments

Kusolitsch, Norbert Eine Bemerkung zum Vergleich von zweiseitigen Testproblemen. (English summary) **82k:62010**

Siebert, Eberhard A stability theorem for statistical experiments. **82a:62014**
Swensen, Anders Rygh Deficiencies between linear normal experiments. **82e:62009**

secondary classifications:

Bernardo Herranz, José-Miguel Asymptotic behavior of the information given by an experiment. (Spanish. English summary) **(82f:62013)**
Gil Alvarez, Maria Angeles Criterion for maximizing the expected quietness (invariant under translations with respect to utilities). (Spanish. English summary) **(82m:62009)**
Torgersen, Erik N. Measures of information based on comparison with total information and with total ignorance. **(82h:62012)**

62B20 Measure-theoretic results, etc.

secondary classifications:

Kozek, Andrzej (*with* Suchanecki, Zdzisław) Multifunctions of faces for conditional expectations of selectors and Jensen's inequality. **(82c:28021)**
Petrov, B. N. (*with* Ulanov, G. M.; Ul'janov, S. V.) Informativeness of signals and compression of controlled information processes. (Russian) **(82g:94003)**
Suchanecki, Zdzisław *See* **Kozek, Andrzej**, **(82c:28021)**
Ulanov, G. M. *See* **Petrov, B. N.; et al.**, **(82g:94003)**
Ul'janov, S. V. *See* **Petrov, B. N.; et al.**, **(82g:94003)**

62B99 None of the above, but in this section

Barndorff-Nielsen, Ole ★Information and exponential families in statistical theory. **82k:62011**

secondary classifications:

Kedem, Benjamin On nearest neighbor degeneracies of indistinguishable particles. **(82h:82006)**

62Cxx Decision theory [See also 90A05; for game theory, see 90Dxx.]

secondary classifications:

Blackwell, David (*with* Girshick, M. A.) ★Theory of games and statistical decisions. **(82a:90191)**
Girshick, M. A. *See* **Blackwell, David**, **(82a:90191)**

62C05 General considerations

Balder, E. J. An extension of the usual model in statistical decision theory with applications to stochastic optimization problems. **82a:62015**
Bartoszyński, Robert (*with* Pleszczyńska, E.) Reducibility of statistical structures and decision problems. **82i:62013**
Brumat, Carlo Logics and hypothetical precepts in the foundations of decision theory. **82i:62014**
Gupta, Shanti S. (*with* Huang, Deng Yuan) ★Multiple statistical decision theory: recent developments. **82m:62008**
Huang, Deng Yuan *See* **Gupta, Shanti S.**, **82m:62008**
Kockelkorn, Ulrich How to order three hypotheses according to their plausibility. **82e:62010**
Kofler, Eduard (*with* Menges, Günter) The structuring of uncertainty and the Max E_{min}-principle. **82a:62016**
Menges, Günter *See* **Kofler, Eduard**, **82a:62016**
Piccinato, Ludovico The theory of statistical decisions. (Italian) **82e:62011**
Pleszczyńska, E. *See* **Bartoszyński, Robert**, **82i:62013**
Salinetti, Gabriella Admissibility, quasi-admissibility and optimality in decision theory. **82g:62014**
Weerahandi, S. (*with* Zidek, James V.) Multi-Bayesian statistical decision theory. **82f:62017**
Zidek, James V. *See* **Weerahandi, S.**, **82f:62017**

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Bunn, Derek W. (*with* Thomas, Howard) Problems in the application of decision analytic methods to policy formulation. (*See* **82k:90009**)
Cohen, Michèle (*with* Jaffray, Jean-Yves) Rational behavior under complete ignorance. **(82a:90013)**
Fishburn, Peter C. Multilinear expected utility. **(82c:90015)**
Jaffray, Jean-Yves *See* **Cohen, Michèle**, **(82a:90013)**
Kindler, Jürgen Statistische Entscheidungsprobleme mit nichtkompaktem Aktionenraum. (English summary) **(82k:62008)**
Marschak, Jacob ★Economic information, decision, and prediction. Selected essays. Vol. I. **(82k:90003a)**
★Economic information, decision, and prediction. Selected essays. Vol. II. **(82k:90003b)**
★Economic information, decision, and prediction. Selected essays. Vol. III. **(82k:90003c)**
Thomas, Howard *See* **Bunn, Derek W.**, (*See* **82k:90009**)

62C07 Complete class results

Gabler, S. *See* **Stenger, H.**, **82b:62004**
Gupta, Shanti S. (*with* Huang, Deng Yuan) An essentially complete class of multiple decision procedures. **82d:62015**
Huang, Deng Yuan *See* **Gupta, Shanti S.**, **82d:62015**
Kozek, Andrzej (*with* Wertz, Wolfgang) On the existence of minimal complete classes of estimators. **82i:62015**
Stenger, H. (*with* Gabler, S.) On the completeness of the class of fixed size sampling strategies. **82b:62004**
Wertz, Wolfgang *See* **Kozek, Andrzej**, **82i:62015**

secondary classifications:

Azzam, Abdul-Mordy *See* **Birkes, David; et al.**, **(82d:62110)**
Birkes, David (*with* Seely, Justus; Azzam, Abdul-Mordy) An efficient estimator of the mean in a two-stage nested model. **(82d:62110)**
Seely, Justus *See* **Birkes, David; et al.**, **(82d:62110)**

62C10 Bayesian problems; characterization of Bayes procedures

Braverman, Jerome D. (*with* Toof, David J.) An application of the Fibonacci search technique to determine optimal sample size in a Bayesian decision problem. **82i:62016**
Dalal, S. R. (*with* Hall, Gaineford J., Jr.) On approximating parametric Bayes models by nonparametric Bayes models. **82c:62011**
Garcia Pérez, Alfonso *See* **Quesada Paloma, Vicente**, **82f:62019**
Gil Alvarez, Maria Angeles Criterion for maximizing the expected quietness (invariant under translations with respect to utilities). (Spanish. English summary) **82m:62009**
Hall, Gaineford J., Jr. *See* **Dalal, S. R.**, **82c:62011**
Ivanenko, V. I. (*with* Labkovskiĭ, V. A.) The indeterminacy function for Bayes systems. (Russian) **82e:62012**
Labkovskiĭ, V. A. *See* **Ivanenko, V. I.**, **82e:62012**
Matsubara, Nozomu Group structure of Bayes theorem. **82d:62016**
Meeden, Glen Betting against a Bayesian bookie. **82f:62018**
Prescott, Edward C. (*with* Townsend, Robert M.) Equilibrium under uncertainty: multiagent statistical decision theory. (*See* **82d:62170**)
Quesada Paloma, Vicente (*with* Garcia Pérez, Alfonso) A model of measurement error as a problem of nonparametric Bayesian decision. (Spanish. English summary) **82f:62019**
Robbins, Herbert An empirical Bayes estimation problem. **82f:62020**
Smith, J. Q. Bayes estimates under bounded loss. **82b:62005**
Sokolov, A. V. Minimax property of optimal equivariant estimates of covariance operators. (Russian) **82b:62006**
Toof, David J. *See* **Braverman, Jerome D.**, **82i:62016**
Townsend, Robert M. *See* **Prescott, Edward C.**, (*See* **82d:62170**)
Trofimov, E. I. Completely randomized procedures for discrimination of hypotheses. (Russian) **82k:62012**
Umbach, Dale On characterizing generalized Bayes estimators for the natural parameter. **82b:62007**
Bayes estimation with spherically symmetric, convex loss. **82j:62004**

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Allende Alonso, Sira (*with* Bouza Herrera, Carlos) Determination of optimal policies for a system described by a noncooperative game. (Spanish) **(82e:62001)**
Berger, Roger L. A necessary and sufficient condition for reaching a consensus using DeGroot's method. **(82j:60126)**
(Bernardo, J. M.) *See* **Bayesian statistics**, **(82k:62003)**
Bouza Herrera, Carlos *See* **Allende Alonso, Sira**, **(82e:62001)**
Brown, L. D. (*with* Cohen, Arthur; Strawderman, William E.) Monotonicity of Bayes sequential tests. **(82a:62128)**
Cohen, Arthur *See* **Brown, L. D.; et al.**, **(82a:62128)**
(DeGroot, Morris H.) *See* **Bayesian statistics**, **(82k:62003)**
Girón, F. J. Probability and utility: dual concepts in decision theory. (Spanish. English summary) **(82d:62007)**
Harris, Milton (*with* Townsend, Robert M.) Resource allocation under asymmetric information. **(82h:90021)**
Hayre, Lakhbir S. An asymptotically Bayes sequential test for comparing two normal means. **(82e:62123)**
Hudimoto, Hirosi On some nonparametric two-sample problems in the case of discrete distributions. (Japanese. English summary) **(82i:62065)**
Hunter, Douglas E. How to cook a Bayes. **(82d:62002)**
(Lindley, Dennis V.) *See* **Bayesian statistics**, **(82k:62003)**
Menzefricke, Ulrich A decision-theoretic approach to variable selection in discriminant analysis. **(82g:62087)**
Noda, Kazuo Bayes decision functions for selections of subpopulations. **(82e:62018)**
Novick, Melvin R. *See* **Ramsay, J. O.**, **(82c:62049)**
Padgett, W. J. (*with* Wei, L. J.) A Bayesian nonparametric estimator of survival probability assuming increasing failure rate. **(82d:62155)**
Ramsay, J. O. (*with* Novick, Melvin R.) PLU robust Bayesian decision theory: point estimation. **(82c:62049)**
Robinson, G. K. Conditional properties of statistical procedures. **(82h:62014)**
Rosenkrantz, Roger D. *See* **Adams, Ernest W.**, **(82a:62011)**
Shafer, Glenn Jeffrey's rule of conditioning. **(82k:62007)**
(Smith, A. F. M.) *See* **Bayesian statistics**, **(82k:62003)**
Strawderman, William E. *See* **Brown, L. D.; et al.**, **(82a:62128)**
Townsend, Robert M. *See* **Harris, Milton**, **(82h:90021)**
Wei, L. J. *See* **Padgett, W. J.**, **(82d:62155)**
Bayesian statistics ★Bayesian statistics. **(82k:62003)**
Meeting:
Bayesian Statistics ★Bayesian statistics. **(82k:62003)**
Valencia ★Bayesian statistics. **(82k:62003)**

62C12 Empirical decision procedures

de Alba, Enrique (*with* Van Ryzin, John) An empirical Bayes approach to outliers:

shifted mean case. **82a:62017**

(*with* Van Ryzin, John) An empirical Bayes approach to outliers. **82a:62018**

Brailovskiĭ, V. I. On the influence of missing data in a sample set on the quality of a statistical decision rule. **82m:62010**

Cressie, Noel A quick and easy empirical Bayes estimate of true scores. **82f:62021**

Deaton, Leonard W. An empirical Bayes approach to polynomial regression under order restrictions. **82k:62013**

Hudimoto, Hirosi On the empirical Bayes approach to classification problems. **82c:62012**

Kegut, Jan On the convergence with probability one for a sequence of empirical Bayes estimators. (Polish summary) **82a:62019**

Noda, Kazuo On a kernel-type decision function for selection of a subpopulation. **82i:62017**

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Šindelář, Jan Algorithmical complexity of some statistical decision processes. I, II. **(82c:68028)**

62C15 Admissibility

Akaike, Hirotugu Ignorance prior distribution of a hyperparameter and Stein's estimator. **82b:62008**

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Bruvold, Norman T. Admissible designs for polynomial monospline regression. **(82h:62130)**

Hoffmann, Kurt Admissible improvements of the least squares estimator. (German and Russian summaries) **(82g:62091)**

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Shinozaki, Nobuo Estimation of a multivariate normal mean with a class of quadratic loss functions. **(82b:62032)**

62C20 Minimax procedures

Berhin, P. E. (*with* Levit, B. Ja.) Asymptotic minimax estimates of the mean of a multivariate Gaussian law. (Russian) **82c:62015**

Bondar, James V. (*with* Milnes, Paul) Amenability: a survey for statistical applications of Hunt-Stein and related conditions on groups. **82h:62015**

Casella, George Minimax ridge regression estimation. **82a:62021**

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Rieder, Helmut On local asymptotic minimaxity and admissibility in robust estimation. **82d:62020**

Sacks, Jerome (*with* Ylvisaker, Donald) Variance estimation for approximately linear models. (German and Russian summaries) **82f:62024**

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Berger, Roger L. Minimax subset selection for the multinomial distribution. **(82a:62045)**

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Friedman, Lea (*with* Gertsbach, I. B.) Parameter estimations in a minimum-type scheme. **(82f:62054)**

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Rutkowska, Magdalena Minmax estimation of the empirical distribution function. (Polish) **(82g:62062)**

Shapiro, S. H. Limited deviation estimators of the Poisson parameter. **(82e:62054)**

62C25 Compound decision problems

Albert, James H. Simultaneous estimation of Poisson means. **82i:62020**

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62C99 None of the above, but in this section

Čencov, N. N. Correctness of the problem of statistical point estimation. (Russian. English summary) **82d:62021**

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Zidek, James V. *See* **Steele, J. Michael, 82a:62022**

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62D05 Sampling theory, sample surveys

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Arnold, Barry C. (*with* Groeneveld, Richard A.) Maximal deviation between sample and population means in finite populations. **82h:62016**

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See also **Nathan, Gad, 82d:62029**
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Jhajj, Harbans Singh *See* **Srivastava, Surendra K., 82g:62025**
Judge, George G. (*with* Yancey, Thomas A.) Sampling properties of an inequality restricted estimator. **82k:62022**
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Royall, Richard M. *See* **Cumberland, William G., 82k:62019**
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Särndal, Carl-Erik Two model-based inference arguments in survey sampling. **82f:62028**
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A two-way classification of regression estimation strategies in probability sampling. (French summary) **82g:62021**
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Singh, Kesar A note on sample quantile processes of finite populations. **82f:62029**
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(*with* Jhajj, Harbans Singh) A class of estimators of the population mean in survey sampling using auxiliary information. **82g:62025**
Srivenkataramana, T. (*with* Tracy, D. S.) Transforming the study variate after PPS sampling. **82m:62022**
On use of auxiliary information in sampling. **82h:62021**
See also **Narasimha Prasad, N. G., 82a:62026**
Thomsen, Ib The use of Markov chain models in sampling from finite populations. **82g:62027**
Timonina, E. E. *See* **Ivčenko, G. I., 82b:62010**
Tracy, D. S. *See* **Srivenkataramana, T., 82m:62022**
Vedaldi, R. (*with* Diana, Giancarlo) On some sampling plans with three terminal decisions. (Italian. English and French summaries) **82h:62022**
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Yancey, Thomas A. *See* **Judge, George G., 82k:62022**
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Bracha, Czesław Estimation of the parameters of a linear regression function on the basis of a random sample taken without replacement from a finite population. (Polish. English and Russian summaries) **(82e:62095)**
Brier, Stephen S. Analysis of contingency tables under cluster sampling. **(82e:62081)**
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Hogue, Carol J. *See* **Shachtman, Richard H.; et al., (82i:92031)**
Kusolitsch, Norbert On a re-sampling problem in the theory of information. **(82e:94033)**
Malik, H. J. *See* **Mikhail, N. N., (82d:62043)**
Mikhail, N. N. (*with* Malik, H. J.) Unbiased estimates of cumulants and products of cumulants. **(82d:62043)**
Moore, Marc Random sampling in pattern reconstruction. **(82h:68120)**
Mukhopadhyay, Parimal On estimation of some confidential characters from survey data. **(82g:62142)**
Schoenfelder, John R. *See* **Shachtman, Richard H.; et al., (82i:92031)**
Sen, Pranab Kumar Limit theorems for an extended coupon collector's problem and for successive subsampling with varying probabilities. **(82g:60041)**
Shachtman, Richard H. (*with* Schoenfelder, John R.; Hogue, Carol J.) Using a stochastic model to investigate time to absorption distributions. **(82i:92031)**

62Exx Distribution theory [See also 60Exx.]

62E10 Characterization and structure theory

Abouammoh, A. M. (*with* Mashhour, A. F.) A note on the unimodality of discrete distributions. **82h:62023**
Adès, M. (*with* Dion, J.-P.; Labelle, G.) Sur l'itération des fonctions génératrices de probabilité. **82m:62024**
Ahsanullah, M. Characterization of the exponential distribution by record values. **82f:62030**
Aitchison, John (*with* Shen, S. M.) Logistic-normal distributions: some properties and uses. **82k:62028**
Arnold, Barry C. Two characterizations of the geometric distribution. **82h:62024**
See also **Huang, Jun-sheng; et al., 82f:62035**
Awad, Adnan M. Remark on the characteristic function of the F-distribution. **82m:62025**
Azlarov, T. A. Characteristic properties of the exponential distribution and their stability. (Russian) **82a:62028**
Bai, Zhi Dong *See* **Su, Chun; et al., 82g:62032**
Bailey, B. J. R. Alternatives to Hastings' approximation to the inverse of the normal cumulative distribution function. **82m:62026**
Baksalary, Jerzy K. (*with* Kala, Radosław) On the difference between two second degree polynomials, each following a chi-square distribution. **82k:62029**
Bandyopadhyay, Uttam Corrigendum: "Semisequential nonparametric tests for two populations with one sample size fixed" [Calcutta Statist. Assoc. Bull. **29** (1980), no.

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Baringhaus, Ludwig Eine simultane Charakterisierung der geometrischen Verteilung und der logistischen Verteilung. (English summary) **82g:62028**

Beg, M. I. (*with* Kirmani, S. N. U. A.) On characterizing the exponential distribution by a property of truncated spacings. **82f:62031**

Bell, C. B. (*with* Ramakrishna Sarma, Y.) A characterization of exponential distributions based on order statistics. **82b:62012**

Brown, Gavin (*with* Sanders, J. W.) Lognormal genesis. **82g:62029**

Bühler, Wolfgang J. (*with* Miescke, Klaus-J.) On $(n-1)$-wise and joint independence and normality of n random variables: an example. **82f:62032**

Chang, Boon Chong Concavity-preserving transformations—a note. **82f:62033**

Chen, Jun Ya *See* **Zhang, Wen Bin**, **82m:62036**

Ciesielski, Z. Gaussian distribution and its appearance in various problems. **82e:62020**

Colombo, A. G. (*with* Costantini, Domenico) A rational reconstruction of the beta distribution. (French and Italian summaries) **82i:62027**

Consul, P. C. (*with* Gupta, H. C.) The generalized negative binomial distribution and its characterization by zero regression. **82a:62029**

Relation of modified power series distributions to Lagrangian probability distributions. **82k:62030**

Costantini, Domenico *See* **Colombo, A. G.**, **82i:62027**

Cuppens, Roger The arithmetic of distribution functions. **82k:62031**

Currie, Iain D. On distributions determined by random variables distributed over the n-cube. **82h:62025**

Dallas, A. C. A characterization using the conditional variance. **82k:62032**

Daniels, H. E. A transformation for normal extremes. **82m:62028**

Diana, Giancarlo On a characterization by expectations. (French and Italian summaries) **82d:62031**

Dion, J.-P. *See* **Adès, M.; et al.**, **82m:62024**

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Gaffke, N. (*with* Rüschendorf, Ludger) On a class of extremal problems in statistics. (German and French summaries) **82f:62034**

George, E. Olusegun (*with* Mudholkar, Govind S.) A characterization of the logistic distribution by a sample median. **82k:62033**

Gerber, Hans U. A characterization of certain families of distributions via Esscher transforms and independence. **82h:62014**

Ghosh, Malay *See* **Huang, Jun-sheng; et al.**, **82f:62035**

Gong, Gail *See* **Samaniego, Francisco J.**, **82k:62039**

Góralski, Andrzej Distribution z-Poisson. **82c:62021**

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Guenther, W. C. A note on the displaced Poisson and the displaced negative binomial. **82d:62033**

Gupta, H. C. *See* **Consul, P. C.**, **82a:62029**

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ul Haq, Masood Ratio of two ordered variables in Pareto distribution. **82h:62026**

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On a "lack of memory" property. **82m:62029**

James, Ian R. (*with* Mosimann, James E.) A new characterization of the Dirichlet distribution through neutrality. **82b:62015**

Jani, P. N. (*with* Shah, Shantilal M.) Integral expressions for the tail probabilities of the modified power series distributions. **82m:62030**

Januškevičius, R. *See* **Zinger, A. A.**, **82i:62029**

Jørgensen, Bent ★Statistical properties of the generalized inverse Gaussian distribution. **82c:62022**

Kala, Radosław *See* **Baksalary, Jerzy K.**, **82k:62029**

Kemp, Adrienne W. Convolutions involving binomial pseudovariables. **82h:62027**

Kirmani, S. N. U. A. *See* **Beg, M. I.**, **82f:62031**

Kotz, Samuel *See* **Grosswald, Emil**, **82j:62007**

Labelle, G. *See* **Adès, M.; et al.**, **82m:62024**

Langberg, Naftali A. (*with* León, Ramón V.; Proschan, Frank) Characterization of nonparametric classes of life distributions. **82g:62031**

León, Ramón V. *See* **Langberg, Naftali A.; et al.**, **82g:62031**

Leti, Giuseppe The distances in descriptive statistics. (French summary) **82m:62031**

Lin, Ching Chuong (*with* Mudholkar, Govind S.) A simple test for normality against asymmetric alternatives. **82k:62035**

Lingappaiah, G. S. Characterization of a mixture of two general distributions. **82m:62032**

MacGillivray, H. L. The mean, median, mode inequality and skewness for a class of densities. **82k:62036**

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Miescke, Klaus-J. *See* **Bühler, Wolfgang J.**, **82f:62032**

Mosimann, James E. *See* **James, Ian R.**, **82b:62015**

Mudholkar, Govind S. *See* **George, E. Olusegun**, **82k:62033** *and* **Lin, Ching Chuong**, **82k:62035**

Narayan, Prakash On bounds for probability generating functions. **82i:62028**

Oja, Hannu On location, scale, skewness and kurtosis of univariate distributions. **82m:62033**

Papp, F. J. Characterization of the normal probability density function in all dimensions. **82m:62034**

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Scott, Alastair (*with* Wu, Chien Fu) On the asymptotic distribution of ratio and regression estimators. **(82g:62022)**

Sen, Pranab Kumar Rank analysis of covariance under progressive censoring. **(82k:62090)**

Serfling, Robert J. ★Approximation theorems of mathematical statistics. **(82a:62003)**

Singh, Ram Sharan Asymptotic normality of nonparametric estimators of derivatives of average of μ-densities. **(82h:62044)**

Siotani, Minoru Asymptotic expansions for the general distributions of test statistics in multivariate analysis—the methods in recent development. II. **(82d:62091a)**

Erratum: "Asymptotic expansions for the general distributions of test statistics in multivariate analysis—the methods in recent development. II". **(82d:62091b)**

See also **Olkin, Ingram**, **(82h:62061)**

Srivastava, M. S. (*with* Carter, E. M.) Asymptotic distribution of latent roots and applications. **(82c:62077)**

See also **Carter, E. M.**, **(82c:62073)** *and* **Khatri, C. G.**, **(82i:62079)**

Stuart, Michael Components of X^2 for testing distributional assumptions against certain restricted alternatives. **(82g:62070)**

Veraverbeke, Noël *See* **Callaert, Herman**, **(82g:60033)**

Wu, Chien Fu *See* **Scott, Alastair**, **(82g:62022)**

Žemaitis, Antanas *See* **Bikelis, Algimantas**, **(82f:60059)**

62E25 Monte Carlo studies

Lux, I. A special method to sample some probability density functions. (German summary) **82h:62036**

secondary classifications:

Hazen, Gordon B. (*with* Pritsker, A. Alan B.) Formulas for the variance of the sample mean in finite state Markov processes. **(82d:60137)**

Pritsker, A. Alan B. *See* **Hazen, Gordon B.**, **(82d:60137)**

Scholz, Hans-Eberhard Einige für die Konstruktion und Untersuchung stetiger Monte-Carlo-Methoden nützliche Definitionen und Sätze aus der Theorie der homogenen Markoffschen Prozesse. **(82g:60104)**

62E30 Formal computational methods (polykays, etc.)

Ali, Mir Masoom (*with* Umbach, Dale; Hassanein, Khatab M.) Estimation of quantiles of exponential and double exponential distributions based on two order statistics. **82i:62034**

Bartels, Robert Truncation bounds for infinite expansions for the stable distributions. **82m:62050**

Brandt, Siegmund ★Datenanalyse. (German) [Data analysis] **82k:62048**

Hassanein, Khatab M. *See* **Ali, Mir Masoom; et al., 82i:62034**

Kronmal, Richard A. (*with* Peterson, Arthur V., Jr.) A variant of the acceptance-rejection method for computer generation of random variables. **82h:62037**

Lamoš, František Pairing formulas for tripolykays. (Slovak and Russian summaries) **82d:62042a**

Some formulas for generalized symmetric means (G.S.M.s) and tripolykays. (Slovak and Russian summaries) **82d:62042b**

Malik, H. J. *See* **Mikhail, N. N., 82d:62043**

Mikhail, N. N. (*with* Malik, H. J.) Unbiased estimates of cumulants and products of cumulants. **82d:62043**

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Peterson, Arthur V., Jr. *See* **Kronmal, Richard A., 82h:62037**

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secondary classifications:

(Eddy, William F.) *See* **Friedman, Jerome H.; et al., (82h:62092)**

Friedman, Jerome H. (*with* Rafsky, Lawrence C.) Graphics for the multivariate two-sample problem. **(82h:62092)**

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Janc, Mirko Approximation of the probability distribution density function by a discretization method regarded as a problem of parametric optimization. (Serbo-Croatian. English summary) **(82g:60028)**

(Mallows, C. L.) *See* **Friedman, Jerome H.; et al., (82h:62092)**

(Pregibon, Daryl) *See* **Friedman, Jerome H.; et al., (82h:62092)**

Rafsky, Lawrence C. *See* **Friedman, Jerome H., (82h:62092)**

62E99 None of the above, but in this section

Dunkl, Charles F. The absorption distribution and the q-binomial theorem. **82i:62035**

Garncarek, Zbignew (*with* Kuklewski, Julian) Investigation of population distribution by the method of its reduction to a four-element subpopulation. (Polish. German summary) **82k:62049**

Klebanov, L. B. More on estimating the stability in the problem of reconstructing the additive type of a distribution. (Russian. English summary) **82j:62012**

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Mohanty, S. G. *See* **Handa, B. R., (82d:60021)**

Šiganov, I. S. A multidimensional analogue of Gram-Charlier and Edgeworth-Cramér expansions. (Russian) **(82e:60043)**

62Fxx Parametric inference

62F03 Hypothesis testing

Abu-Salih, M. S. (*with* Awad, Adnan M.) Comparison of different tests for the shape parameter of a Pareto model. (Arabic summary) **82m:62051**

Adhikari, B. P. (*with* Ramakrishna Sarma, Y.) Some tests of hypotheses for cluster sampling. **82e:62029**

Ahluwalia, Rashpal *See* **Rohatgi, V. K., 82h:62039**

Alam, Khursheed (*with* Mitra, Amitava) Polarization test for the multinomial distribution. **82d:62045**

Awad, Adnan M. *See* **Abu-Salih, M. S., 82m:62051**

Barker, Lawrence E. Allocating observations in a test for the ratio of scales of independent gamma variates. **82k:62051**

Basu, Asit P. *See* **Weier, D. R., 82g:62040**

Beg, M. A. Exponential family distribution with unknown truncation parameter: two-sample problem. **82g:62038**

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Bernštein, A. V. (*with* Kudlaev, È. M.) The use of Neyman's $C(\alpha)$-test for processing the results of randomized experiments. (Russian) **82b:62024**

Cohen, Jiska *See* **Pollak, Moshe, 82h:62038**

Coleman, A. T. *See* **Hocking, R. R.; et al., 82f:62042**

Du, Ding Zhu *See* **Hwang, F. K.; et al., 82k:62054**

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Godfrey, L. G. On the invariance of the Lagrange multiplier test with respect to certain changes in the alternative hypothesis. **82k:62052**

Gorbačev, A. A. (*with* Koldanov, A. P.) The application of nonparametric methods for solving parametric problems of distinguishing N hypotheses. (Russian) **82f:62041**

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Hirano, Katuomi A note on the level of significance of the preliminary test in pooling variances. **82a:62038**

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Iglewicz, Boris *See* **Martinez, Jorge, 82f:62044**

Jurečková, Jana Rate of consistency of one sample tests of location. **82e:62031**

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Kudlaev, È. M. *See* **Bernštein, A. V., 82b:62024**

Kusolitsch, Norbert On replacing composite hypotheses by simple ones. **82e:62032**

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Marasini, Donata The two-dimensional Student distribution and a test that allows the control of the type I error. (Italian. English and French summaries) **82d:62046**

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Mehra, K. L. *See* **Lam, Kin, 82k:62055**

(Meshkani, M. R.) *See* **Kempthorne, Oscar, 82i:62037**

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See also **Gupta, Arjun K., 82k:62053**

Scott, Elizabeth L. Comparison of two treatments when there may be an initial effect. **82m:62056**

Song, Tian Tai *See* **Hwang, F. K.; et al., 82k:62054**

Speed, F. M. *See* **Hocking, R. R.; et al., 82f:62042**

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Toyoda, Toshihisa *See* **Ohtani, Kazuhiro, 82a:62039**

Weier, D. R. (*with* Basu, Asit P.) Testing for independence in multivariate exponential distributions. **82g:62040**

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Chernoff, Herman The identification of an element of a large population in the presence of noise. **(82b:68083)**

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Dash, S. P. Validity of F-test in a randomized block design with missing data. **(82e:62115)**

Harvey, A. C. (*with* Phillips, G. D. A.) Testing for heteroscedasticity in simultaneous equation models. **(82f:62192)**

King, Maxwell L. A small sample property of the Cliff-Ord test for spatial correlation. **(82m:62146)**

de Kroon, J. (*with* van der Laan, P.) Distribution-free test procedures in two-way layouts; a concept of rank-interaction. **(82m:62148)**

van der Laan, P. *See* **de Kroon, J., (82m:62148)**

Mels, T. A geometric approach to testing the sufficiency of sets of parameters in the normal theory of least squares. (Russian. English summary) **(82d:62113)**

Phillips, G. D. A. *See* **Harvey, A. C., (82f:62192)**

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Srivastava, S. R. *See* **Ali, M. A., (82m:62140)**

62F04 Small sample properties of tests

Amundsen, H. T. (*with* Ljøgodt, H.) Correction: "Small sample tests against an ordered

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Kageyama, Sanpei Variations of power for t-test based on differences in two sample sizes. **82g:62041**

Katiyar, R. S. *See* **Mathai, A. M., 82k:62056**

Laurent, A. G. *See* **Kabe, D. G., 82j:62013**

Ljogodt, H. *See* **Amundsen, H. T., 82e:62034**

Mathai, A. M. (*with* Katiyar, R. S.) Exact percentage points for three tests associated with exponential populations. **82k:62056**

62F05 Asymptotic properties of tests

Basawa, I. V. Remarks on Bahadur optimality of conditional tests. **82a:62040**

Bednarski, Tadeusz Application and optimality of the chi-square test of fit for testing ε-validity of parametric models. **82e:62036**

Berk, Robert H. (*with* Cohen, Arthur) Asymptotically optimal methods of combining tests. **82e:62035**

Bernštein, A. V. Asymptotically similar tests. (Russian) **82a:62041**

The construction of majorizing tests. (Russian. English summary) **82a:62042**

Birgé, Lucien Vitesses maximales de décroissance des erreurs et tests optimaux associés. (English summary) **82f:62045**

Bosq, Denis Efficacité asymptotique des tests hilbertiens et du test de Neyman-Pearson sous des hypothèses adjacentes. (English summary) [Asymptotic efficiency of Hilbertian tests and of the Neyman-Pearson test under adjacent hypotheses] **82i:62039**

Carroll, Raymond J. (*with* Ruppert, David) On robust tests for heteroscedasticity. **82m:62058**

Chandra, Tapas K. (*with* Ghosh, J. K.) Comparison of tests with same Bahadur efficiency. **82a:62043**

(*with* Ghosh, J. K.) Valid asymptotic expansions for the likelihood ratio statistic and other perturbed chi-square variables. **82h:62041**

Cohen, Arthur *See* **Berk, Robert H., 82e:62035**

Csörgő, Sándor Bahadur efficiency and Erdős-Rényi maxima. **82j:62014**

Ghosh, J. K. *See* **Chandra, Tapas K., 82a:62043** *and* **82h:62041**

Hammerstrom, Thomas Asymptotically optimal tests for heteroscedasticity in the general linear model. **82g:62042**

van Houwelingen, J. C. (*with* Schipper, R. M.) The efficiency of a test based on the asymptotic distribution of the MLE for a linear functional relationship. (German and Russian summaries) **82f:62046**

Ivčenko, G. I. (*with* Medvedev, Ju. I.) Decomposable statistics and hypothesis testing for grouped data. (Russian. English summary) **82m:62059**

Kallenberg, Wilbert C. M. The shortcoming of locally most powerful tests in curved exponential families. **82j:62015**

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Medvedev, Ju. I. *See* **Ivčenko, G. I., 82m:62059**

Michel, Reinhard On the asymptotic efficiency of conditional tests for exponential families. **82h:62042**

Nazarov, N. G. (*with* Tarasenko, V. F.) Planning of the collection and processing of observations in solution of problems of testing statistical hypotheses. (Russian) **82e:62036**

Neyman, Jerzy $C(\alpha)$ tests and their use. **82h:62043**

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Pfaff, Th. (*with* Pfanzagl, J.) On the numerical accuracy of approximations based on Edgeworth expansions. **82a:62044**

Pfanzagl, J. *See* **Pfaff, Th., 82a:62044**

Rüger, B. Alternativtests für zwei einfache Hypothesen mit endlich vielen Ergebnissen. (English summary) **82e:62037**

Ruppert, David *See* **Carroll, Raymond J., 82m:62058**

Schipper, R. M. *See* **van Houwelingen, J. C., 82f:62046**

Tarasenko, V. F. *See* **Nazarov, N. G., 82e:62036**

Vorob'ev, L. S. (*with* Žurbenko, I. G.) Bounds for the power of $C(\alpha)$-tests and their applications. (Russian. English summary) **82h:62040**

Žurbenko, I. G. *See* **Vorob'ev, L. S., 82h:62040**

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de Alba, Enrique (*with* Van Ryzin, John) An empirical Bayes approach to outliers. **(82a:62018)**

Barndorff-Nielsen, Ole (*with* Cox, David Roxbee) Edgeworth and saddle-point approximations with statistical applications. **(82a:62032)**

Bartoszyński, Robert Some thoughts about Jerzy Neyman. **(82h:01034)**

Cox, David Roxbee *See* **Barndorff-Nielsen, Ole, (82a:62032)**

Forster, Alfred Aspects particuliers des tests optimaux d'hypothèses multiples en détection active. Fonction d'ambiguité généralisée intervenant dans les systèmes de détection active utilisant les tests optimaux de Neyman-Pearson. (English summary) **(82d:94008)**

Funk, Gerald M. *See* **Kryscio, Richard J.; et al., (82g:60136)**

Kryscio, Richard J. (*with* Saunders, Roy; Funk, Gerald M.) Normal approximations for binary lattice systems. **(82g:60136)**

Lin'kov, Ju. M. Asymptotic behavior of the probability of error of the likelihood ratio test in the discrimination of point processes with continuous compensators. (Russian) **(82k:62117)**

Asymptotic normality of stochastic integrals and statistics of discontinuous processes. (Russian. English summary) **(82f:60127)**

Lipitakis, Elias A. The use of the generalized extended to the limit sparse factorization techniques for the solution of nonlinear elliptic and parabolic difference equations. **(82i:65067)**

(Neyman, Jerzy) *See* **Bartoszyński, Robert, (82h:01034)**

Saunders, Roy *See* **Kryscio, Richard J.; et al., (82g:60136)**

Van Ryzin, John *See* **de Alba, Enrique, (82a:62018)**

Zanella, Angelo Testing hypotheses for mixed functional and regression linear models. (Italian. English and French summaries) **(82a:62098)**

62F07 Ranking and selection

Amer, Paul D. (*with* Dudewicz, Edward J.) Two new goals for selection based on proportions. **82b:62027**

Arkles, L. (*with* Srinivasan, R.) On the sequential selection of the better of two binomial populations. **82f:62048**

Berger, Roger L. Minimax subset selection for the multinomial distribution. **82a:62045**

Selecting all treatments better than a control using existing tables. **82i:62040**

Broström, Göran On sequentially rejective subset selection procedures. **82f:62049**

Chattopadhyay, A. K. Selecting the normal population with largest (smallest) value of Mahalanobis distance from the origin. **82d:62049**

Chen, Hubert J. On selecting a subset which contains all populations better than a control. **82d:62050**

Deshpande, Jayant V. (*with* Mehta, Gobind P.) Selection rules for IFRA populations. **82h:62044**

Dudewicz, Edward J. *See* **Amer, Paul D., 82b:62027** *and* **Lee, Young Jack, 82b:62028**

Gulati, Chandra M. Finding the replaced population. **82i:62041**

Gupta, Shanti S. (*with* Huang, Deng Yuan) A note on optimal subset selection procedures. **82a:62046**

(*with* Hsu, Jason C.) Subset selection procedures with application to motor vehicle fatality data in a two-way layout. **82d:62051**

Hsieh, Hui Kuang On estimating the mean of the selected population with unknown variance. **82h:62045**

Hsu, Jason C. *See* **Gupta, Shanti S., 82d:62051**

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Lee, Young Jack (*with* Dudewicz, Edward J.) On the least favorable configuration of a selection procedure based on rank sums: counterexample to a postulate of Matsui. **82b:62028**

Nonparametric selections in blocked data: application to motor vehicle fatality rate data. **82g:62043**

Levin, Bruce (*with* Robbins, Herbert) Selecting the highest probability in binomial or multinomial trials. **82m:62060**

Lorenzen, Thomas J. (*with* McDonald, Gary C.) Selecting logistic populations using the sample medians. **82c:62038**

McDonald, Gary C. Subset selection rules based on quasiranges for uniform populations. **82e:62038**

See also **Lorenzen, Thomas J., 82c:62038**

Mehta, Gobind P. *See* **Deshpande, Jayant V., 82h:62044**

Miescke, Klaus-J. Γ-minimax selection procedures in simultaneous testing problems. **82f:62050**

Robbins, Herbert *See* **Levin, Bruce, 82m:62060**

Shaffer, Juliet Popper Control of directional errors with stagewise multiple test procedures. **82e:62039**

Srinivasan, R. *See* **Arkles, L., 82f:62048**

Tamhane, Ajit C. Ranking and selection problems for normal populations with common known coefficient of variation. **82e:62040**

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Carroll, Raymond J. On sequential estimation of the largest normal mean when the variance is known. **(82c:62109)**

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Gyires, Béla Weak convergence of linear rank statistics. **(82e:60037)**

Hsu, Jason C. Robust and nonparametric subset selection procedures. **(82a:62069)**

Huang, Deng Yuan *See* **Gupta, Shanti S., (82d:62015)**

62F10 Point estimation

Abu-Salih, M. S. On the resolution of a mixture of observations from two modified power series distributions. **82d:62052**

Aickin, M. Existence of MLEs for discrete linear exponential models. **82c:62039**

Aranda-Ordaz, Francisco J. On two families of transformations to additivity for binary response data. **82h:62046**

Awad, Adnan M. Maximum likelihood estimation of the noncentrality parameter of Poisson mixture of distributions. **82e:62041**

Bai, Do Sun *See* **Kim, Seong In, 82b:62031**

Baldessari, Bruno (*with* Gallo, Francesca) On the estimation of variance-covariance parameters for dependent normal data. (Italian and French summaries) **82j:62016**

Banon, G. Use of possibility measures for modeling an a priori knowledge in parametric estimation. **82f:62051**

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Best, D. J. (*with* Fisher, N. I.) The bias of the maximum likelihood estimators of the von Mises-Fisher concentration parameters. **82i:62042**

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Bhatnagar, S. *See* **Srivastava, Virender Kumar; et al., 82e:62047**

Bhattacharya, C. G. Estimation of a common location. **82i:62044**

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On the ABLUE and the optimum *t*-test of the parameter of Rayleigh distribution. **82i:62045**

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Cressie, Noel Transformations and the jackknife. **82k:62058**

Cybakov, A. B. Exactness of the estimate of the minimum point of a functional of mean risk type for a finite sample. (Russian) **82k:62059**

Dahiya, Ram C. An improved method of estimating an integer-parameter by maximum likelihood. **82b:62029**

Drygas, Hilmar (*with* Hupet, Georges) Nonnegativeness of the best quadratic unbiased estimator of the variance in the linear regression model. **82f:62053**

Dudewicz, Edward J. Estimation of ranked parameters: insights and advances. **82d:62055**

Dwivedi, T. D. *See* **Srivastava, Virender Kumar; et al., 82e:62047**

Dwyer, P. S. *See* **Tracy, D. S., 82m:62068**

Eubank, Randall L. Estimation of the parameters and quantiles of the logistic distribution by linear functions of sample quantiles. **82m:62061**

Fattorini, Lorenzo Percentile estimators for the parameters of the normal distribution. **82m:62062**

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Funatsu, Yoshiaki Estimation of the difference between two proportions in a finite multinomial population. **82a:62047**

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62F12 Asymptotic properties of estimators

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Kloek, Teun (*with* van Dijk, Herman K.) Bayesian estimates of equation system parameters: an application of integration by Monte Carlo. (*See* **82d:62170**)
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Mascioli, Flavia A Bayesian method for the estimation of probability in a multinomial model. **82d:62062**
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62G10 Hypothesis testing

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Černomordik, O. M. On a nonparametric test for homogeneity of several samples. (Russian. English summary) **82h:62045**

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Policello, George E., II *See* **Fligner, Michael A., 82d:62079**

Puri, Madan L. (*with* Rao, Jammalamadaka Sreenivasa; Yoon, Youngjoo) A simple test for goodness-of-fit based on spacings with some efficiency comparisons. **82i:62070**

(*with* Rajaram, Navaratna S.) Asymptotic normality and convergence rates of linear rank statistics under alternatives. **82e:62070**

Pyhel, N. Distribution-free r sample tests for the hypothesis of parallelism of response profiles. (German summary) **82i:62071**

Rajaram, Navaratna S. *See* **Puri, Madan L., 82e:62070**
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Rao, Jammalamadaka Sreenivasa *See* **Puri, Madan L.; et al., 82i:62070**
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Schoenfeld, David Tests based on linear combinations of the orthogonal components of the Cramér-von Mises statistic when parameters are estimated. **82h:62048**
The asymptotic properties of nonparametric tests for comparing survival distributions. **82g:62069**
Sen, Pranab Kumar Rank analysis of covariance under progressive censoring. **82k:62090**
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Smyślјaeva, L. G. The relation between spectral densities of continuous and discrete random processes. (Russian. Kazakh summary) **82e:62072**
Spurrier, John D. *See* **Hewett, John E., 82e:62064**
Stuart, Michael Components of X^2 for testing distributional assumptions against certain restricted alternatives. **82g:62070**
Tardif, Serge On the almost sure convergence of the permutation distribution for aligned rank test statistics in randomized block designs. **82c:62067**
Wakimoto, Kazumasa k-multiple chart and its application to the test for homogeneity against ordered alternatives. **82g:62071**
Whitehead, John *See* **Jones, David, 82i:62068**
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Araki, Takaharu (*with* Shirahata, Shingo) Rank tests for ordered alternatives in randomized blocks. **(82h:62124)**
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62G15 Tolerance and confidence regions

Alexander, Charles H. Simultaneous confidence bounds for the tail of an inverse distribution function. **82a:62064**
Gural'nik, K. Š. Two-sided confidence bounds for convex distribution functions. (Russian) **82a:62065**

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Šťulajter, František Locally best unbiased estimates of functionals of covariance functions of a Gaussian stochastic process. **(82e:62140)**

62G20 Asymptotic efficiency

DeLong, David M. Some asymptotic properties of a progressively censored nonparametric test for multiple regression. **82c:62068**
Markham, R. Asymptotic relative efficiencies of tests based on the method of n rankings when the underlying distributions are discrete. **82h:62077**
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Dwass, Meyer The extended sign test. **(82f:62079)**
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62G25 Quick and easy methods

Cicchitelli, G. The sampling distribution of the ratio of two linear combinations of order statistics. **82g:62072**
Hanssens, Dominique M. *See* **Liu, Lon Mu, 82h:62078**
Liu, Lon Mu (*with* Hanssens, Dominique M.) A Bayesian approach to time-varying cross-sectional regression models. **82h:62078**

62G30 Order statistics; empirical distribution functions

Aggarwal, M. L. *See* **Nagabhushanam, A., 82f:62083**
Ahsanullah, M. Linear prediction of record values for the two parameter exponential distribution. **82m:62105**
Ali, Mir Masoom *See* **Umbach, Dale; et al., 82i:62077**
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David, Herbert Aron ★Order statistics. **82i:62073**
See also **O'Connell, M. J., 82h:62052**
Dobija, Mieczysław (*with* Wąsik, Bogusław; Zając, Kazimierz) Construction and application of one-dimensional empirical distribution functions of continuous random variables. (Polish. English and Russian summaries) **82d:62087**
Eicker, Friedhelm A unifying asymptotic distribution theory for sums of functions of order statistics. **82d:62088**
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62G99 None of the above, but in this section

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62Hxx Multivariate analysis [See also 60Exx.]

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62H05 Characterization and structure theory

Abd-El-Hakim, Nagi S. *See* **Al-Hussaini, Essam K., 82g:62076**
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62H10 Distribution of statistics

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Ali, Mir M. *See* **Kuan, K. S., 82c:62075**

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(*with* Sugiyama, Takakazu) Improved approximations to distributions of the largest and the smallest latent roots of a Wishart matrix. **82f:62091**

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Patino-Leal, Hugo *See* **Reilly, Park M.**, **(82i:62055)**
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62H15 Hypothesis testing

Ahmad, Manzoor Tests of multiple correlation with additional data. **82f:62099**
Banerjee, P. K. (*with* Giri, Narayan C.) On D-, E-, D_A- and D_M-optimality properties of test procedures of hypotheses concerning the covariance matrix of a normal distribution. **82g:62081**
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Chakraborty, Sukharanyan *See* **Clement, Bernard; et al.**, **82h:62085**
Clement, Bernard (*with* Chakraborty, Sukharanyan; Sinha, Bimal Kumar; Giri, Narayan C.) Tests for the mean vector under intraclass covariance structure. **82h:62085**
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Holmes, Dorothy *See* **Mardia, K. V.**, **82a:62077**
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Jensen, D. R. Efficiencies in multivariate paired experiments. **82c:62079**
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Kawaguchi, Michiaki *See* **Sato, Yoshiharu; et al.**, **82g:62082**
Koziol, James A. A smooth test for bivariate independence. **82k:62100**
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(*with* Holmes, Dorothy) A statistical analysis of megalithic data under elliptic pattern. **82a:62077**
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Mori, Naganori A monotonicity property of the power function of the modified likelihood ratio test of the equality of two covariance matrices. II. **82k:62101**
Mudholkar, Govind S. (*with* Subbaiah, Perla) A review of step-down procedures for multivariate analysis of variance. **82j:62039**
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Olkin, Ingram *See* **Perlman, Michael D.**, **82c:62081**
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Smith, Wendell C. (*with* Han, Chien Pai) Error rate for testing a contrast after a significant F test. **82k:62102**
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Utts, Jessica M. (*with* Hettmansperger, Thomas P.) A robust class of tests and estimates for multivariate location. **82k:62103**
Willcox, M. E. *See* **Fisher, N. I.; et al.**, **82m:62123**
Yamanoi, Takahiro *See* **Sato, Yoshiharu; et al.**, **82g:62082**
Analysis of variance ★Analysis of variance. **82f:62102**
Handbook of Statistics ★Analysis of variance. **82f:62102**

secondary classifications:

Brown, L. D. (*with* Cohen, Arthur; Strawderman, William E.) Monotonicity of Bayes sequential tests. **(82a:62128)**
Cohen, Arthur *See* **Brown, L. D.; et al.**, **(82a:62128)**
Dietz, E. Jacquelin (*with* Killeen, Timothy J.) A nonparametric multivariate test for monotone trend with pharmaceutical applications. **(82e:62062)**
Griffiths, R. C. *See* **de Silva, Basil M.**, **(82a:62063)**
Harris, P. (*with* Peers, H. W.) The local power of the efficient scores test statistic. **(82c:62025)**
Kariya, Takeaki Note on a condition for equality of sample variances in a linear model. **(82b:62081)**
A robustness property of Hotelling's T^2-test. **(82c:62052)**
Khatri, C. G. Some optimization problems with applications to canonical correlations and sphericity tests. **(82f:15005)**
Killeen, Timothy J. *See* **Dietz, E. Jacquelin**, **(82e:62062)**
Peers, H. W. *See* **Harris, P.**, **(82c:62025)**
Sen, Pranab Kumar Nonparametric simultaneous inference for some MANOVA models. (*See* **82f:62102**)
de Silva, Basil M. (*with* Griffiths, R. C.) A test of independence for bivariate symmetric stable distributions. **(82a:62063)**
Singh, Kesar Large deviation probabilities for certain dependent processes. **(82i:62072)**
Strawderman, William E. *See* **Brown, L. D.; et al.**, **(82a:62128)**
Wong, Chi Song (*with* Wong, Kai Sang) A first derivative test for the maximum likelihood estimates. **(82e:62082)**
Wong, Kai Sang *See* **Wong, Chi Song**, **(82e:62082)**

62H17 Contingency

(Abt, Clark C.) *See* **Goodman, Leo A.**, **82a:62079**
Agresti, Alan A hierarchical system of interaction measures for multidimensional contingency tables. **82k:62104**
Bargmann, Rolf E. Scaling of multidimensional contingency tables by union-intersection. **82d:62094**
Bastin, Ch. (*with* Benzécri, J.-P.; Bourgarit, Ch.; Cazes, P.) ★Pratique de l'analyse des données. 2. (French) [Application of data analysis. 2] **82b:62064b**
Benzécri, J.-P. (*with* Benzécri-LeRoy, Françoise) ★Pratique de l'analyse des données. 1. (French) [Application of data analysis. 1] **82b:62064a**
See also **Bastin, Ch.; et al.**, **82b:62064b**
Benzécri-LeRoy, Françoise *See* **Benzécri, J.-P.**, **82b:62064a**
Bhapkar, Vasant P. On tests of symmetry when higher order interactions are absent. (*See* **82a:62008**)
ANOVA and MANOVA: models for categorical data. (*See* **82f:62102**)
Bourgarit, Ch. *See* **Bastin, Ch.; et al.**, **82b:62064b**
Brier, Stephen S. Analysis of contingency tables under cluster sampling. **82e:62081**
Cazes, P. *See* **Bastin, Ch.; et al.**, **82b:62064b**
Collombier, Dominique La semi-séparabilité dans les tables de contingence tronquées. (English summary) (*See* **82f:62004**)
Coppi, Renato On the analysis of the interdependence in multidimensional contingency tables. (Italian. English summary) **82d:62095**
Domański, Czesław (*with* Tomaszewicz, Andrzej) A note on convergence of the independence test statistic for 2×2 contingency tables to the chi-square distribution. **82c:62083**
(Fienberg, Stephen E.) *See* **Goodman, Leo A.; et al.**, **82c:62084**
Gokhale, D. V. (*with* Kullback, Solomon) ★The information in contingency tables. **82g:62083**
Good, Irving J. An approximation of value in the Bayesian analyses of contingency tables. **82j:62040**
Goodman, Leo A. ★Analyzing qualitative/categorical data. **82a:62079**
(*with* Kruskal, William H.) ★Measures of association for cross classifications. **82c:62084**
Association models and the bivariate normal for contingency tables with ordered categories. **82j:62041**
Association models and canonical correlation in the analysis of cross-classifications having ordered categories. **82h:62087**
Hartz, Stuart C. *See* **Hosmer, David W.**, **82m:62125**
Hosmer, David W. (*with* Hartz, Stuart C.) Methods for analyzing odds ratios in a $2\times C$ contingency table. **82m:62125**
Kawasaki, Seiichi (*with* Zimmermann, Klaus F.) Measuring relationships in the log-linear probability model by some compact measures of association. (German, French and Russian summaries) **82h:62088**
Kruskal, William H. *See* **Goodman, Leo A.**, **82c:62084**
Kullback, Solomon *See* **Gokhale, D. V.**, **82g:62083**
Lancaster, H. O. Orthogonal models for contingency tables. **82d:62096**
Lehmacher, W. Simultaneous sign tests for marginal homogeneity of square contingency tables. (German summary) **82d:62097**

Lerman, I. C. (*with* Tallur, B.) Classification des éléments constitutifs d'une juxtaposition de tableaux de contingence. **82d:62098**
(Magidson, Jay) *See* **Goodman, Leo A., 82a:62079**
Nishisato, Shizuhiko ★Analysis of categorical data: dual scaling and its applications. **82d:62099**
O'Neill, M. E. The distribution of higher-order interactions in contingency tables. **82d:62100**
Otake, Masanori Comparison of relative risk, attributable risk and logistic response procedures for $2\times2\times2$ and $c\ 2\times2\times2$ contingency tables. **82k:62105**
Palmgren, Juni The Fisher information matrix for log linear models arguing conditionally on observed explanatory variables. **82h:62089**
Rao, J. N. K. (*with* Scott, Alastair) The analysis of categorical data from complex sample surveys: chi-squared tests for goodness of fit and independence in two-way tables. **82j:62042**
Scott, Alastair *See* **Rao, J. N. K., 82j:62042**
Tallur, B. *See* **Lerman, I. C., 82d:62098**
Tomaszewicz, Andrzej *See* **Domański, Czesław, 82c:62083**
Wong, Chi Song (*with* Wong, Kai Sang) A first derivative test for the maximum likelihood estimates. **82e:62082**
Wong, Kai Sang *See* **Wong, Chi Song, 82e:62082**
Yassaee, Hedayat On analysis of contingency tables. **82e:62083**
Zimmermann, Klaus F. *See* **Kawasaki, Seiichi, 82h:62088**

secondary classifications:

Plackett, R. L. ★The analysis of categorical data. **(82m:62001)**

62H20 Measures of association (correlation, canonical correlation, etc.)

Ahmed, Abdul-Hadi N. (*with* León, Ramón V.; Proschan, Frank) Generalized association, with applications in multivariate statistics. **82e:62084**
Aitchison, John A new approach to null correlations of proportions. **82i:62084**
Bennett, B. M. Use of the tetrachoric correlation model in assessing clinical tests. **82h:62065**
Bingham, Christopher (*with* Nelson, Lloyd S.) An approximation for the distribution of the von Neumann ratio. **82j:62043**
Corsten, L. C. A. Canonical correlation in incomplete blocks. **82b:62066**
Critchley, Frank Optimal norm characterisations of multidimensional scaling methods and some related data analysis problems. (French summary) (*See* **82f:62004**)
Dąbrowska, D. (*with* Pleszczyńska, E.; Szczesny, W.) Remarks on multivariate analogues of Kendall's tau. **82k:62106**
Daudin, J. J. Partial association measures and an application to qualitative regression. **82b:62067**
Gilula, Zvi A note on measuring the degree of dependence between two discrete random variables measured on a nominal scale. **82i:62085**
(Goldgar, David E.) *See* **Zerbe, Gary O., 82k:62108**
Jupp, P. E. (*with* Mardia, K. V.) A general correlation coefficient for directional data and related regression problems. **82b:62068**
(*with* Mardia, K. V.) Amendments and corrections: "A general correlation coefficient for directional data and related regression problems" [Biometrika **67** (1980), no. 1, 163–173; MR 82b:62068]. **82m:62126**
Kabe, D. G. *See* **Scobey, P., 82f:62103**
Kocherlakota, K. (*with* Kocherlakota, S.) On the distribution of r in samples from the mixtures of bivariate normal populations. **82i:62086**
Kocherlakota, S. *See* **Kocherlakota, K., 82i:62086**
Kowalczyk, T. (*with* Matuszewski, A.; Nalbach-Leniewska, A.; Pleszczyńska, E.) On concepts and measures of bivariate stochastic dependence. **82c:62085**
Kshirsagar, A. M. *See* **Radhakrishnan, R., 82m:62129**
Lengyel, Tamás The canonical correlation analysis and some related problems. (Hungarian. English summary) **82d:62101**
León, Ramón V. *See* **Ahmed, Abdul-Hadi N.; et al., 82e:62084**
Mardia, K. V. *See* **Jupp, P. E., 82b:62068** *and* **82m:62126**
Matuszewski, A. *See* **Kowalczyk, T.; et al., 82c:62085**
Moran, P. A. P. Testing the largest of a set of correlation coefficients. **82k:62107**
Muirhead, Robb J. The effects of elliptical distributions on some standard procedures involving correlation coefficients: a review. **82c:62086**
Nalbach-Leniewska, A. *See* **Kowalczyk, T.; et al., 82c:62085**
Nelson, Lloyd S. *See* **Bingham, Christopher, 82j:62043**
Niki, Naoto Canonical correlation analysis of categorical data. Quantification based on the correlation between two sets of categorical variates. (Japanese. English summary) **82m:62127**
O'Brien, Peter C. A likelihood test for multivariate serial correlation. **82c:62087**
O'Neill, M. E. A note on the canonical correlations from contingency tables. **82m:62128**
Parring, A.-M. General asymptotic distribution of incomplete multiple correlation coefficients. (Russian. English summary) **82e:62085**
Pleszczyńska, E. *See* **Kowalczyk, T.; et al., 82c:62085** *and* **Dąbrowska, D.; et al., 82k:62106**
Proschan, Frank *See* **Ahmed, Abdul-Hadi N.; et al., 82e:62084**
Purcaru, Ion Entropic measures of dependence between the components of a three-dimensional random vector. **82j:62044**
Radhakrishnan, R. (*with* Kshirsagar, A. M.) Influence functions for certain parameters in multivariate analysis. **82m:62129**
Rao, C. Radhakrishna A lemma on G-inverse of a matrix and computation of corrlation coefficients in the singular case. **82i:62087**
Rüschendorf, Ludger Weak association of random variables. **82i:62088**
Scobey, P. (*with* Kabe, D. G.) Some correlation optimization problems of econometrics, statistics and psychology. **82f:62103**
Shohoji, Takao (*with* Yamashita, Yuji; Tarumi, Tomoyuki) Generalization of Fisher's z-transformation. **82m:62130**
Stokes, S. Lynne Inferences on the correlation coefficient in bivariate normal populations from ranked set samples. **82j:62045**
Szczesny, W. *See* **Dąbrowska, D.; et al., 82k:62106**
Tarumi, Tomoyuki *See* **Shohoji, Takao; et al., 82m:62130**
Tomkins, R. J. On the limiting behaviour of sample correlation coefficients. **82d:62102**
Wolff, E. F. n-dimensional measures of dependence. **82g:62084**
Yamashita, Yuji *See* **Shohoji, Takao; et al., 82m:62130**
Yanai, Haruo Explicit expressions of projectors on canonical variables and distances between centroids of groups. **82i:62089**
Zerbe, Gary O. Letter to the editor: "Comparison of intraclass correlation coefficients with the ratio of two independent F-statistics" [Comm. Statist. A—Theory Methods **9** (1980), no. 15, 1641–1655; MR 81h:62033] by the author and D. E. Goldgar. **82k:62108**
Zhang, Yao Ting Generalized correlation coefficients and their applications. I. (Chinese) **82i:62090a**
Generalized correlation coefficients and their applications. II. (Chinese) **82i:62090b**

secondary classifications:

Chandon, Jean-Louis (*with* Pinson, Suzanne) ★Analyse typologique. (French) [Typological analysis] **(82k:92073)**
(Diday, E.) *See* **Chandon, Jean-Louis; et al., (82k:92073)**
Goodman, Leo A. Association models and canonical correlation in the analysis of cross-classifications having ordered categories. **(82h:62087)**
Kabe, D. G. Some results for the univariate normal random linear regression model prediction theory. **(82h:62104)**
Kawasaki, Seiichi (*with* Zimmermann, Klaus F.) Measuring relationships in the log-linear probability model by some compact measures of association. (German, French and Russian summaries) **(82h:62088)**
Krastin', O. P. Interrelation of methods for determination and analysis of regression equations. (Russian) **(82h:62107)**
Lee, H. N. (*with* Meyers, R. E.) On time dependent multigrid numerical technique. **(82b:65082)**
Mak, T. K. (*with* Ng, K. W.) Analysis of familial data: linear-model approach. **(82h:62180)**
van der Merwe, A. (*with* Zidek, James V.) Multivariate regression analysis and canonical variates. (French summary) **(82a:62099)**
Meyers, R. E. *See* **Lee, H. N., (82b:65082)**
Ng, K. W. *See* **Mak, T. K., (82h:62180)**
Nijkamp, Peter ★Multidimensional spatial data and decision analysis. **(82c:90090)**
Pinson, Suzanne *See* **Chandon, Jean-Louis, (82k:92073)**
(Rietveld, Piet) *See* **Nijkamp, Peter, (82c:90090)**
(Spronk, Jaap) *See* **Nijkamp, Peter, (82c:90090)**
(van Veenendaal, Wouter) *See* **Nijkamp, Peter, (82c:90090)**
(Voogd, Henk) *See* **Nijkamp, Peter, (82c:90090)**
Zidek, James V. *See* **van der Merwe, A., (82a:62099)**
Zimmermann, Klaus F. *See* **Kawasaki, Seiichi, (82h:62088)**

62H25 Factor analysis and principal components

Aragon, Yves (*with* Caussinus, Henri) Une analyse en composantes principales pour des unités statistiques correlées. (English summary) (*See* **82f:62004**)
Bannikov, V. A. Approximation of matrices and its application in factor analysis. (Russian) **82k:62109**
Basilevsky, Alexander Factor analysis regression. (French summary) **82k:62110**
Browne, M. W. Factor analysis of multiple batteries by maximum likelihood. **82k:62111**
Carter, E. M. Tests of location based on principal components. **82d:62103**
Caussinus, Henri *See* **Aragon, Yves,** (*See* **82f:62004**)
Endo, Hideki An asymptotic theory of categorical principal component analysis. **82a:62080**
Harter, H. Leon Some early applications of order statistics to multivariate analysis. (French summary) **82c:62088**
Isogai, Takafumi *See* **Okamoto, Masashi, 82b:62069**
Kollo, T. Testing of hypotheses on principal components. (Russian. English summary) **82d:62104**
Kuročkina, A. I. Optimal properties of principal components of an ω-weighted covariance matrix. (Russian) **82k:62112**
Lyttkens, Ejnar The conditional distribution of random errors for given observed values with application to factor analysis. **82f:62104**
McDonald, Roderick P. A simple comprehensive model for the analysis of covariance structures: some remarks on applications. **82d:62105**
Okamoto, Masashi Random model and fixed model of principal component analysis. **82h:62090**
(*with* Isogai, Takafumi) Optimality of multidimensional representation in Hayashi's fourth method of quantification. **82b:62069**
Steiger, James H. On the empirical equivalence of regression components and common factors. **82k:62113**
Volle, Michel ★Analyse des données. (French) [Data analysis] **82m:62131**

secondary classifications:

David, M. *See* **Dumitriu, M.; et al., (82c:86006)**
Dumitriu, C. *See* **Dumitriu, M.; et al., (82c:86006)**
Dumitriu, M. (*with* Dumitriu, C.; David, M.) Typological factor analysis: a new classification method applied to geology. **(82c:86006)**
Fernando, K. V. M. (*with* Nicholson, H.) Karhunen-Loève expansion with reference to singular-value decomposition and separation of variables. **(82j:94002)**
Hartmann, Wolfgang ★Geometrische Modelle zur Analyse empirischer Daten. (German) [Geometric models for the analysis of empirical data] **(82a:62002)**
Nicholson, H. *See* **Fernando, K. V. M., (82j:94002)**
Saxena, Ashok K. Principal components and its use in regression analysis: the problem revisited. (Italian and French summaries) **(82i:62156)**

62H30 Classification and discrimination; cluster analysis [See also 68Gxx.]

Albert, Arthur E. (*with* Anderson, John Anthony) Probit and logistic discriminant functions. **82j:62046**

Ambrosi, Klaus ★Aggregation und Identifikation in der numerischen Taxonomie. (German) [Aggregation and identification in numerical taxonomy] **82e:62086**

(Amirchahy, M.) *See* **Data analysis and computer science, 82h:62096**

Anderson, John Anthony *See* **Albert, Arthur E., 82j:62046**

Barra, J.-R. À propos d'un résultat de Brailovsky concernant une probabilité d'erreur en analyse discriminante. **82g:62085**

Bayne, C. K. (*with* Tan, W. Y.) QDF misclassification probabilities for known population parameters. **82k:62114**

Berišvili, G. Š. A classification algorithm. (Russian) **82k:62115**

Binder, David A. Approximations to Bayesian clustering rules. **82f:62105**

Bochi, S. (*with* Brossier, G.; Celeux, Gilles; Charles, Christian; Chifflet, R.; Darcos, J.; Diday, E.; Diebolt, J.; Fevre, P.; Govaert, G.; Hanani, O.; Jacquet, D.; Lechevallier, Yves; Lemaire, Jacques; Lemoine, Y.; Molliere, J. L.; Morisset, G.; Ok-Sakun, Y.; Rousseau, P.; Sankoff, D.; Schroeder, A.; Sidi, J.; Taleng, F.) ★Optimisation en classification automatique. Tome 1, 2. (French) [Optimization in automatic classification. Vol. 1, 2] **82k:62116**

Bohrer, Robert (*with* Chow, Winston; Faith, Ray; Joshi, V. M.; Wu, Chien Fu) Multiple three-decision rules for factorial simple effects: Bonferroni wins again! **82f:62106**

Braverman, E. L. (*with* Levina, A. I.; Levin, M. I.) Hierarchical aggregation of multiple classifications. **82h:62091**

Brossier, G. *See* **Bochi, S.; et al., 82k:62116**

Bruynooghe, M. An accelerated clustering algorithm based on the convex hull concept. **82d:62106**

Celeux, Gilles Un algorithme de partitionnement récursif en discrimination non paramétrique. **82i:62091**
See also **Bochi, S.; et al., 82k:62116**

Chanda, Kamal C. Asymptotic properties of classification rules based on Wilcoxon-type statistics. **82h:62070**

Charles, Christian *See* **Bochi, S.; et al., 82k:62116**

Chifflet, R. *See* **Bochi, S.; et al., 82k:62116**

Chow, Winston *See* **Bohrer, Robert; et al., 82f:62106**

Darcos, J. *See* **Bochi, S.; et al., 82k:62116**

Della, Riccia G. (*with* De Santis, F.; Shapiro, A.) Factor analysis and clustering. (*See* **82d:94002**)

De Santis, F. *See* **Della, Riccia G.; et al.,** (*See* **82d:94002**)

Devroye, Luc (*with* Wise, Gary L.) Consistency of a recursive nearest neighbor regression function estimate. **82h:62071**
On the asymptotic probability of error in nonparametric discrimination. **82m:62132**

Diday, E. *See* **Bochi, S.; et al., 82k:62116**

Diebolt, J. *See* **Bochi, S.; et al., 82k:62116**

DiPillo, Pasquale J. Biased discriminant analysis: evaluation of the optimum probability of misclassification. **82a:62081**

Dunn, C. L. (*with* Smith, W. B.) Combinatoric classification of multivariate normal variates. **82e:62087**

(Eddy, William F.) *See* **Friedman, Jerome H.; et al., 82h:62092**

Everitt, Brian ★Cluster analysis. **82a:62082**

Faith, Ray *See* **Bohrer, Robert; et al., 82f:62106**

Fang, Kai Tai Cluster analysis. I. (Chinese) **82f:62107a**
Cluster analysis. II. (Chinese) **82f:62107b**

Fevre, P. *See* **Bochi, S.; et al., 82k:62116**

Friedman, Jerome H. (*with* Rafsky, Lawrence C.) Graphics for the multivariate two-sample problem. **82h:62092**

Fujikoshi, Yasumori (*with* Kanazawa, Mitsuyo) The ML classification statistic in covariate discriminant analysis and its asymptotic expansions. **82b:62072**
See also **Kanazawa, Mitsuyo, 82a:62087**

Gabor, G. A nonparametric method to discriminate two populations. **82h:62093**

(Gentleman, Jane F.) *See* **Friedman, Jerome H.; et al., 82h:62092**

Gersovitz, Mark Classification probabilities for the disequilibrium model. **82a:62083**

Gnanadesikan, R. (*with* Kettenring, J. R.; Landwehr, J. M.) Interpreting and assessing the results of cluster analyses. (French summary) **82f:62108**

Golmard, J. L. *See* **Nakache, J.-P.; et al.,** (*See* **82f:62004**)

Govaert, G. *See* **Bochi, S.; et al., 82k:62116**

Gulati, Chandra M. Selection of certain dichotomous experiments. **82c:62089**

Gupta, Arjun K. On a multivariate statistical classification model. **82g:62086**

Hall, Peter Optimal near neighbour estimator for use in discriminant analysis. **82h:62094**

Hanani, O. *See* **Bochi, S.; et al., 82k:62116**

Healy, J. D. The effects of misclassification error on the estimation of several population proportions. **82f:62109**

Heuchenne, Christian La meilleure discrimination linéaire sans hypothèse distributionnelle? (English summary) **82a:62084**

Hmel'nickaja, A. B. Projection models of multidimensional invariant scaling. (Russian) **82a:62085**

van Houwelingen, Hans Risk convergence rates in empirical Bayes classification. **82b:62073**

Inada, Kōichi (*with* Kudô, Akio) Computational schemes for selecting variables in pairwise discriminant analyses. **82a:62086**

Jacquet, D. *See* **Bochi, S.; et al., 82k:62116**

Janowitz, M. F. Preservation of global order equivalence. **82m:62133**
Continuous L-cluster methods. **82f:62110**

Joshi, V. M. *See* **Bohrer, Robert; et al., 82f:62106**

Kanazawa, Mitsuyo (*with* Fujikoshi, Yasunori) The distribution of the Studentized classification statistic W^* in covariate discriminant analysis. **82a:62087**
The asymptotic cut-off point and comparison of error probabilities in covariate discriminant analysis. **82e:62088**
See also **Fujikoshi, Yasunori, 82b:62072**

Kaukėnas, Jonas *See* **Telksnys, Laimutis, 82e:62090**

Kazakos, Dimitri (*with* Papantoni-Kazakos, P.) Spectral distance measures between Gaussian processes. **82j:62047**

Kettenring, J. R. *See* **Gnanadesikan, R.; et al., 82f:62108**

(Kol'cov, P. P.) *See* **Classification and clustering, 82d:62108**

Kudô, Akio *See* **Inada, Kōichi, 82a:62086**

Landwehr, J. M. *See* **Gnanadesikan, R.; et al., 82f:62108**

Lechevallier, Yves *See* **Bochi, S.; et al., 82k:62116**

Lemaire, Jacques *See* **Bochi, S.; et al., 82k:62116**

Lemoine, Y. *See* **Bochi, S.; et al., 82k:62116**

Levin, M. I. *See* **Braverman, E. L.; et al., 82h:62091**

Levina, A. I. *See* **Braverman, E. L.; et al., 82h:62091**

Lin, Hsien Elsa Classification rules based on U-statistics. **82h:62095**

(Mallows, C. L.) *See* **Friedman, Jerome H.; et al., 82h:62092**

McLachlan, G. J. A comparison of the estimative and predictive methods of estimating posterior probabilities. **82c:62090**

Menzefricke, Ulrich A decision-theoretic approach to variable selection in discriminant analysis. **82g:62087**

Michalek, Joel E. (*with* Tripathi, Ram C.) The effect of errors in diagnosis and measurement on the estimation of the probability of an event. **82m:62134**

Mirkin, B. G. ★Анализ качественных признаков и структур. (Russian) [Analysis of qualitative attributes and structures] **82j:62048**

Mojena, R. (*with* Wishart, D.) Stopping rules for Ward's clustering method. **82d:62107**

Molliere, J. L. *See* **Bochi, S.; et al., 82k:62116**

Morice, V. *See* **Nakache, J.-P.; et al.,** (*See* **82f:62004**)

Morisset, G. *See* **Bochi, S.; et al., 82k:62116**

Nakache, J.-P. (*with* Morice, V.; Golmard, J. L.) Discrimination sur variables binaires basée sur l'estimation des distributions de probabilité par groupe. (English summary) (*See* **82f:62004**)

Nakamura, Takashi *See* **Ohsumi, Noboru, 82m:62135**

(Néel, D.) *See* **Data analysis and computer science, 82h:62096**

Ohsumi, Noboru (*with* Nakamura, Takashi) Some properties of monotone hierarchical dendrogram in numerical classification. (Japanese. English summary) **82m:62135**

Ok-Sakun, Y. *See* **Bochi, S.; et al., 82k:62116**

Opitz, Otto (*with* Schader, Martin) Zur Berücksichtigung informeller Beziehungen in der Aufbauorganisation mit Hilfe von Klassifikationsmethoden. (English summary) (*See* **82e:90130**)

Papantoni-Kazakos, P. *See* **Kazakos, Dimitri, 82j:62047**

(Pregibon, Daryl) *See* **Friedman, Jerome H.; et al., 82h:62092**

Rafsky, Lawrence C. *See* **Friedman, Jerome H., 82h:62092**

Raudys, Šarūnas Classification errors when selecting features. (Russian. Lithuanian and English summaries) **82h:62074**

Rousseau, P. *See* **Bochi, S.; et al., 82k:62116**

Sankoff, D. *See* **Bochi, S.; et al., 82k:62116**

Schader, Martin *See* **Opitz, Otto,** (*See* **82e:90130**)

Schervish, Mark J. Asymptotic expansions for the means and variances of error rates. **82f:62111**

Schroeder, A. *See* **Bochi, S.; et al., 82k:62116**

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Streit, F. Correction: "Multivariate linear discrimination when the covariance matrix is unknown" [South African Statist. J. **13** (1979), no. 2, 93–101; MR 81d:62058]. **82b:62076**

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Anderson, John Anthony (*with* Philips, P. R.) Regression, discrimination and measurement models for ordered categorical variables. **(82f:62116)**
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★Pattern recognition with fuzzy objective function algorithms. **(82j:68090)**
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Kapur, Bharat D. (*with* Patil, Ganapati P.) On multivariate size allometry. **(82f:92005)**
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Amato, Vittorio Logarithm of a rectangular matrix with application to data analysis. (*See* **82f:62004**)
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62J02 General nonlinear regression

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Fox, Terry (*with* Hinkley, David V.; Larntz, Kinley) Corrigenda: "Jackknifing in nonlinear regression" [Technometrics **22** (1980), no. 1, 29–33; MR 81i:62114]. **82f:62115**
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Mešalkin, L. D. (*with* Kuročkina, A. I.) A new approach to parametrization of regression relations. (Russian. English summary) **82e:62093**
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Eichhorn, Heinrich (*with* Standish, E. Myles, Jr.) Remarks on nonstandard least-squares problems. **(82f:65012)**
Gordon, Louis (*with* Olshen, Richard A.) Consistent nonparametric regression from recursive partitioning schemes. **(82d:62070)**
Inselmann, Edmond H. Regression for Markov Bernoulli random variables. **(82a:62136)**
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Ali, M. A. (*with* Srivastava, S. R.) On certain approximations of power of a test procedure using two preliminary tests in a mixed model. **82m:62140**

(*with* Singh, Naunihal) An alternative estimator in inverse linear regression. **82m:62141**

Anderson, John Anthony (*with* Philips, P. R.) Regression, discrimination and measurement models for ordered categorical variables. **82f:62116**

Anderson, T. W. Correction to: "Estimating linear restrictions on regression coefficients for multivariate normal distributions" [Ann. Math. Statist. **22** (1951), 327–351; MR **13**, 144]. **82c:62092**

Arnold, Steven F. Asymptotic validity of F tests for the ordinary linear model and the multiple correlation model. **82h:62078**

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Gunst, Richard F. (*with* Mason, Robert Lee) ★Regression analysis and its application. **82a:62091**

Hartung, Joachim (*with* Werner, Hans-Joachim) Zur Verwendung der restringierten Moore-Penrose-Inversen beim Testen von linearen Hypothesen. **82j:62052**

Harville, David A. Unbiased and minimum-variance unbiased estimation of estimable functions for fixed linear models with arbitrary covariance structure. **82h:62103**

Hashimoto, Akihiro (*with* Honda, Masayuki; Inoue, Takakatsu; Taguri, Masaaki) Selection of regression models by several information criterions. **82k:62128**

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Kildea, D. G. Brown-Mood type median estimators for simple regression models. **82i:62093**

King, Maxwell L. A small sample property of the Cliff-Ord test for spatial correlation. **82m:62146**

Kleffe, Jürgen On recent progress of MINQUE theory—nonnegative estimation, consistency, asymptotic normality and explicit formulae. **82h:62106**

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Krämer, Walter Finite sample efficiency of ordinary least squares in the linear regression model with autocorrelated errors. **82f:62127**

A note on the equality of ordinary least squares and Gauss-Markov estimates in the general linear model. **82k:62133**

Krasker, William S. Estimation in linear regression models with disparate data points. **82a:62093**

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Longley, James Wildon Least squares computations and the condition of the matrix. **82m:62152**

Madhava Rao, K. S. (*with* Gore, A. P.) Distribution-free tests for parallelism and concurrence in two-sample regression problem. **82k:62134**

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Mels, T. A geometric approach to testing the sufficiency of sets of parameters in the normal theory of least squares. (Russian. English summary) **82d:62113**

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Pagan, Adrian Some identification and estimation results for regression models with stochastically varying coefficients. **82a:62094**

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Silverman, B. W. (*with* Titterington, D. M.) Minimum covering ellipses. **(82g:51025)**
Titterington, D. M. *See* **Silverman, B. W., (82g:51025)**

62Kxx Experimental design [See also 05Bxx.]

secondary classifications:

John, Peter W. M. The analysis of variance. (*See* **82c:62003**)

62K05 Optimal designs

Ash, Arlene (*with* Hedayat, A.) An introduction to design optimality with an overview of the literature. (*See* **82g:62106**)
Auget, J. L. *See* **Maccario, J.; et al., 82a:62111**
Bandura, V. N. (*with* Palant, Ju. A.) Design of an experiment with response in the form of a function. (Russian) **82e:62109**
Bartalošová, L. *See* **Kubáček, L.; et al., 82m:62168**
Bittanti, S. Periodic mean-value processes: estimation-oriented information analysis. **82e:62110**
Catchpole, E. A. On the convergence of an algorithm of Jones. **82m:62162**
Chacko, Annie (*with* Dey, A.) Weighing designs optimum for the estimation of total weight. **82m:62163**
Chan, Fung Yee *See* **Endrenyi, Laszlo, 82m:62165**
Chan, N. N. (*with* Wong, Chi Song) Existence of an A-optimal model for a regression experiment. **82f:62139**
Chèng, Ch'ing Shui A note on (M, S)-optimality. (*See* **82g:62106**)
Optimal incomplete block designs with four varieties. **82i:62109**
(*with* Wu, Chien Fu) Balanced repeated measurements designs. **82c:62100**
Optimality and construction of pseudo-Youden designs. **82j:62059**
Constantine, Gregory M. Some E-optimal block designs. **82m:62164**
Cukanov, A. V. Optimality criteria for experimental designs for a regression model with random arguments. (Russian. English summary) **82f:62140**
Damgaliev, D. L. *See* **Vučkov, I. N.; et al., 82i:62112**
Dey, A. *See* **Chacko, Annie, 82m:62163**
Didry, J. R. *See* **Maccario, J.; et al., 82a:62111**
Dol'berg, O. M. *See* **Meleško, V. I., 82h:62123**
Eccleston, John A. *See* **Jones, Byron, 82e:62112** *and* **Russell, K. G.; et al., 82i:62111**
Endrenyi, Laszlo (*with* Chan, Fung Yee) Optimal design of experiments for the estimation of precise hyperbolic kinetic and binding parameters. **82m:62165**
Fedorov, V. V. Some extremal problems in designing discriminating experiments. (*See* **82g:62106**)
Convex design theory. **82a:62104**
Active regression experiments. (Russian) **82m:62166**
Gaffke, N. (*with* Krafft, O.) D-optimum designs for the interblock-model. **82e:62111**
Some classes of optimality criteria and optimal designs for complete two-way layouts. **82k:62147**
Galil, Zvi (*with* Kiefer, Jack Carl) D-optimum weighing designs. **82g:62104**
See also **Kiefer, Jack Carl, 82a:62108**
Hedayat, A. *See* **Ash, Arlene, (82g:62106)** *and* **Optimal design theory, 82g:62106**
Hill, Peter D. H. D-optimal designs for partially nonlinear regression models. **82a:62105**
Ionchev, Ch. A. *See* **Vučkov, I. N.; et al., 82i:62112**
Jacroux, Michael A. On the determination and construction of E-optimal block designs with unequal numbers of replicates. **82b:62089**
(*with* Seely, Justus) Some sufficient conditions for establishing (M, S)-optimality. **82a:62106**
Jones, Byron (*with* Eccleston, John A.) Exchange and interchange procedures to search for optimal designs. **82e:62112**
Kiefer, Jack Carl Asymptotic approach to families of design problems. (*See* **82g:62106**)
(*with* Galil, Zvi) Optimum weighing designs. **82a:62108**
Optimal design theory in relation to combinatorial design. **82a:62107**
(*with* Wynn, H. P.) Optimum balanced block and Latin square designs for correlated observations. **82h:62122**
The interplay of optimality and combinatorics in experimental design. (French summary) **82m:62167**
See also **Galil, Zvi, 82g:62104**
Knudsen, G. J. *See* **Russell, K. G.; et al., 82i:62111**
Krafft, O. *See* **Gaffke, N., 82e:62111**
Kubáček, L. (*with* Bartalošová, L.; Pecár, J.) Designing of free levelling traverses. **82m:62168**
Kurotschka, V. Optimal design of complex experiments with qualitative factors of influence. (*See* **82g:62106**)
Laycock, P. J. Multivariate optimal design. **82a:62109**
(*with* Seiden, Esther) On a problem of repeated measurement design with treatment additivity. **82a:62110**
Maccario, J. (*with* Didry, J. R.; Auget, J. L.) Une méthode de comparaison des courbes doses/réponses dans le cas où les paramètres ne sont pas estimables. **82a:62111**
Magda, Constantine Gregory Circular balanced repeated measurements designs. **82c:62101**
Mahmudov, A. A. Design of regression experiments taking systematic errors into account. (Russian) **82a:62112**
Mandal, Nripes Kumar On estimation of the maximal point of a single factor quadratic response function. **82a:62113**
Meleško, V. I. (*with* Dol'berg, O. M.) Design of compromise experiments in the presence of correlated noise. (Russian) **82h:62123**
Meržanova, R. F. (*with* Nikitina, E. P.) ★Каталог планов третьего порядка. (Russian) [Catalog of third-order designs] **82k:62148**
Nair, C. Ramankutty A note on the construction of optimal repeated measurements designs. **82m:62169a**
Corrigendum: "A note on the construction of optimal repeated measurements designs". **82m:62169b**

Ng, Tung Sang (*with* Qureshi, Zahid H.) Optimal experiment design for autoregressive model with output power constraints. **82i:62110**
Nikitina, E. P. *See* **Meržanova, R. F.**, **82k:62148**
Palant, Ju. A. *See* **Bandura, V. N.**, **82e:62109**
Pázman, Andrej Some features of the optimal design theory—a survey. **82a:62114**
Pecár, J. *See* **Kubáček, L.; et al.**, **82m:62168**
Pukelsheim, Friedrich On linear regression designs which maximize information. **82g:62105**
On *c*-optimal design measures. (German and Russian summaries) **82f:62141**
Qureshi, Zahid H. *See* **Ng, Tung Sang**, **82i:62110**
del Rio Bueno, Manuel Optimal designs for discrimination between linear regression models. (Spanish. English summary) **82h:62090**
Russell, K. G. (*with* Eccleston, John A.; Knudsen, G. J.) Algorithms for the construction of (M,S)-optimal block designs and row-column designs. **82i:62111**
Seely, Justus *See* **Jacroux, Michael A.**, **82a:62106**
Seiden, Esther *See* **Laycock, P. J.**, **82a:62110**
Silvey, Samuel David (*with* Titterington, D. M.; Torsney, B.) An algorithm for optimal designs on a finite design space. (*See* **82g:62106**)
★Optimal design. **82d:62123**
Smith, A. F. M. (*with* Verdinelli, I.) A note on Bayes designs for inference using a hierarchical linear model. **82h:62091**
Spruill, Carl Optimal designs for second order processes with general linear means. **82c:62102**
Studden, W. J. Designs for large degree polynomial regression. (*See* **82g:62106**)
D_2-optimal designs for polynomial regression using continued fractions. **82a:62115**
Tar, László A generalized model of the Latin square design. I. **82a:62116**
Titterington, D. M. Geometric approaches to design of experiment. (German and Russian summaries) **82m:62170**
See also **Silvey, Samuel David; et al.**, (*See* **82g:62106**)
Torsney, B. *See* **Silvey, Samuel David; et al.**, (*See* **82g:62106**)
Verdinelli, I. *See* **Smith, A. F. M.**, **82h:62091**
Vučkov, I. N. (*with* Damgaliev, D. L.; Ončev, Ch. A.) Sequentially generated second order quasi-*D*-optimal designs for experiments with mixture and process variables. **82i:62112**
Welch, W. J. *See* **White, L. V.**, **82m:62171**
White, L. V. (*with* Welch, W. J.) A method for constructing valid restricted randomization schemes using the theory of *D*-optimal design of experiments. **82m:62171**
Wong, Chi Song *See* **Chan, N. N.**, **82f:62139**
Wu, Chien Fu Some iterative procedures for generating nonsingular optimal designs. (*See* **82g:62106**)
See also **Chêng, Ch'ing Shui**, **82c:62100**
Wynn, H. P. *See* **Kiefer, Jack Carl**, **82h:62122**
Optimal design theory ★Optimal design theory. **82g:62106**

secondary classifications:

Ash, Arlene Generalized Youden designs: construction and tables. **(82f:62145)**
Bernardo Herranz, José-Miguel Expected information as expected utility. **(82a:62012)**
Boltze, Lothar (*with* Näther, Wolfgang) Some remarks on experimental design for estimating the expectation of a stationary random process. **(82m:62193)**
Jian, Ji Sheng Some viewpoints on optimum search methods using orthogonal arrays. (Chinese) **(82a:90076)**
Malickiĭ, A. A. A variational problem in a class of indicators and its connection with the theory of experiments. (Russian. English summary) **(82a:49020)**
Näther, Wolfgang (*with* Pilz, J.) Estimation and experimental design in a linear regression model using prior information. (Polish summary) **(82e:62100)**
See also **Boltze, Lothar**, **(82m:62193)**
Pilz, J. *See* **Näther, Wolfgang**, **(82e:62100)**
Zarrop, M. B. Optimal input design for the identification of linear multivariable systems with disjoint parametrization. **(82m:93031)**

62K10 Block designs

Agarwal, S. K. Two auxiliary variates in ratio method of estimation. **82f:62142**
Araki, Takaharu (*with* Shirahata, Shingo) Rank tests for ordered alternatives in randomized blocks. **82h:62124**
Bechhofer, Robert E. (*with* Tamhane, Ajit C.) Incomplete block designs for comparing treatments with a control: general theory. **82h:62125**
Blaisdell, E. A., Jr. (*with* Raghavarao, D.) Partially balanced change-over designs based on *m*-associate class PBIB designs. **82e:62113**
Ceranka, B. (*with* Mejza, S.) On the efficiency factor for a contrast of treatment parameters. **82a:62117**
Chandak, M. L. On the theory of resistant block designs. **82c:62103**
Cox, David Roxbee A remark on systematic Latin squares. **82e:62114**
Das, A. D. (*with* Saha, G. M.) A note on duals of some T_m-type PBIB designs. **82g:62107**
Dash, S. P. Validity of *F*-test in a randomized block design with missing data. **82e:62115**
Dey, A. (*with* Singh, Murari) Some series of efficiency balanced designs. **82m:62172**
Federer, Walter T. Some recent results in experiment design with a bibliography. I. (French summary) **82b:62092**
See also **Khare, Meena**, **82i:62113**
Giovagnoli, Alessandra (*with* Wynn, H. P.) A majorization theorem for the *C*-matrices of binary designs. **82e:62116**
Gujarathi, C. C. *See* **Shah, Shantilal M.**, **82e:62119**
Gupta, Devendra Some new circular distributions and their trigonometric moments. **82m:62173**
Gupta, R. A. *See* **Purl, P. D.; et al.**, **82f:62144**
Ikeda, Sadao (*with* Ogawa, Junjiro) Randomization of a partially balanced incomplete block design. **82d:62124**
Jasiukiewicz, T. On existence of UMVUQE for each estimable parametric function of variance covariance components in block designs. (German and Russian summaries) **82k:62149**
Jiang, Sheng Finite geometries and experimental designs. (Chinese) **82m:62174**
John, Peter W. M. ★Incomplete block designs. **82a:62118**
Kabe, D. G. *See* **Shah, Shantilal M.**, **82i:62115**
Kageyama, Sanpei Inequalities for certain partially balanced incomplete block designs. **82h:62126a**
A condition for the existence of certain resolvable 2-designs. **82a:62119**
Corrections and supplements to the paper: "Inequalities for certain partially balanced incomplete block designs". **82h:62126b**
Certain block structure of block designs. **82f:62143**
Note on designs in serology. **82c:62104**
Robustness of connected balanced block designs. **82a:62120**
On properties of efficiency-balanced designs. **82a:62121**
Bounds on the number of blocks and some block structure for resolvable designs. **82e:62117**
On balanced incomplete block designs with $v=2k$. **82g:62108**
Some bounds for partially balanced block designs. **82g:62109**
Constructions of efficiency-balanced designs. **82m:62175**
Khare, Meena (*with* Federer, Walter T.) A simple construction procedure for resolvable incomplete block designs for any number of treatments. **82i:62113**
Liu, Zhang Wen Some families of partially balanced designs of Latin square type. (Chinese) **82m:62176**
Longyear, J. Q. A survey of nested designs. **82i:62114**
Mejza, S. *See* **Ceranka, B.**, **82a:62117**
Nigam, A. K. *See* **Purl, P. D.; et al.**, **82f:62144**
Ogawa, Junjiro *See* **Ikeda, Sadao**, **82d:62124**
Pal, Satyabrata A note on partially efficiency balanced designs. **82m:62177**
Pandian, V. S. Soundara Some properties for balanced *n*-ary designs. **82m:62178**
Purl, P. D. (*with* Nigam, A. K.; Singh, Murari; Gupta, R. A.) A note on balanced row-and-column designs. **82f:62144**
Raghavarao, D. *See* **Blaisdell, E. A., Jr.**, **82e:62113**
Rüschendorf, Ludger A generalization of the marriage theorem and balancing of block designs. **82e:62118**
Saha, G. M. *See* **Das, A. D.**, **82g:62107**
Shah, Shantilal M. (*with* Gujarathi, C. C.) On a locally resistant BIB design of degree 1. **82e:62119**
(*with* Kabe, D. G.) An upper bound for the number of treatments common to any set of blocks of certain PBIB designs. **82i:62115**
Shirahata, Shingo *See* **Araki, Takaharu**, **82h:62124**
Singh, Murari *See* **Purl, P. D.; et al.**, **82f:62144** *and* **Dey, A.**, **82m:62172**
Talukder, M. A. H. General block designs with a heteroscedastic model. **82m:62179**
Tamhane, Ajit C. *See* **Bechhofer, Robert E.**, **82h:62125**
Tyagi, B. N. On a class of variance balanced block designs. **82a:62122**
Wynn, H. P. *See* **Giovagnoli, Alessandra**, **82e:62116**

secondary classifications:

Bhagwandas (*with* Parihar, J. S.) Some new group divisible designs. **(82b:05045)**
Bose, R. C. (*with* Shrikhande, S. S.) Baer subdesigns of symmetric balanced incomplete block designs. **(82b:05023)**
Feng, Ke Qin (*with* Wu, Li Sheng; Zhu, Lie) Affine classification of Boolean functions and the construction of 3-$(\lambda,k,2^n)$ designs. (Chinese) **(82d:94071a)**
Hedayat, A. (*with* Li, Shuo-Yen Robert) Combinatorial topology and the trade-off method in BIB designs. **(82a:05014)**
(*with* Kageyama, Sanpei) The family of *t*-designs. I. **(82b:05025)**
(*with* Khosrovshahi, G. B.) An algebraic study of BIB designs: a complete solution for $v=6$ and $k=3$. **(82e:05029)**
Heinrich, Katherine Latin squares with no proper subsquares. **(82b:05032)**
Hine, T. C. (*with* Mavron, V. C.) Embeddable transversal designs. **(82d:05026)**
Jacroux, Michael A. (*with* Seely, Justus) Some sufficient conditions for establishing (M,S)-optimality. **(82a:62106)**
Kageyama, Sanpei (*with* Nishii, Ryuei) Nonexistence of equireplicated variance-balanced designs with $b=v+1$. **(82a:05015)**
(*with* Tsuji, Takumi) Some bounds on balanced block designs. **(82d:05027)**
See also **Hedayat, A.**, **(82b:05025)**
Khosrovshahi, G. B. *See* **Hedayat, A.**, **(82e:05029)**
Kiefer, Jack Carl Optimal design theory in relation to combinatorial design. **(82a:62107)**
Kuriki, Shinji A counterexample to Masuyama's result. **(82f:05013)**
Li, Shuo-Yen Robert *See* **Hedayat, A.**, **(82a:05014)**
Mavron, V. C. *See* **Hine, T. C.**, **(82d:05026)**
Mukerjee, Rahul On a theorem of Bush on orthogonal arrays. **(82a:05022)**
Nishii, Ryuei *See* **Kageyama, Sanpei**, **(82a:05015)**
Ohmori, Hiroyuki On the *p*-rank for symmetrical balanced incomplete block designs. **(82g:05020)**
Parihar, J. S. *See* **Bhagwandas**, **(82b:05045)**
Peres, Clovis A. Testing the effect of blocking in a randomized complete block design (RCBD). **(82k:62137)**
Puccio, L. (*with* Ricca, G.; Termini, D.) On the construction of a table of BIBD for v from 4 to 10. (Italian. English summary) **(82m:05019)**
Ricca, G. *See* **Puccio, L.; et al.**, **(82m:05019)**
Seberry, Jennifer *See* **Street, Deborah J.**, **(82a:05019)**
Seely, Justus *See* **Jacroux, Michael A.**, **(82a:62106)**
Seiden, Esther (*with* Wu, Ching Jung) On construction of three mutually orthogonal Latin squares by the method of sum composition. **(82j:05031)**
Sharma, H. C. On the construction of some L_2 designs. **(82c:05035)**
Shrikhande, Mohan On an inequality satisfied by the parameters of partially balanced incomplete block designs. **(82c:05020)**
Shrikhande, S. S. *See* **Bose, R. C.**, **(82b:05023)**
Street, Deborah J. (*with* Seberry, Jennifer) All DBIBDs with block size four exist. **(82a:05019)**

Tamari, Fumikazu *See* **Yamamoto, Sumiyasu, (82e:05049)**
Termini, D. *See* **Puccio, L.; et al., (82m:05019)**
Tsuji, Takumi *See* **Kageyama, Sanpei, (82d:05027)**
Wu, Ching Jung *See* **Seiden, Esther, (82j:05031)**
Wu, Li Sheng (*with* Zhu, Lie) Affine classification of Boolean functions and the construction of 3-$(\lambda, k, 2^n)$ designs. II. (Chinese) **(82d:94071b)**
See also **Feng, Ke Qin; et al., (82d:94071a)**
Yamamoto, Sumiyasu (*with* Tamari, Fumikazu) An existence condition for multidimensional partially balanced association schemes. **(82e:05049)**
Zhu, Lie *See* **Feng, Ke Qin; et al., (82d:94071a)** *and* **Wu, Li Sheng, (82d:94071b)**

62K15 Factorial designs

Anderson, Donald A. (*with* Thomas, Ann M.) Near minimal resolution IV designs for the s^n factorial experiment. **82a:62123**
(*with* Thomas, Ann M.) Weakly resolvable IV.3 search designs for the p^n factorial experiment. **82b:62093**
Ash, Arlene Generalized Youden designs: construction and tables. **82f:62145**
Bose, R. C. Combinatorial problems of experimental design. II. Factorial designs. **82g:62110**
Daudin, J. J. An iterative algorithm for analysis of variance. (French summary) **82e:62120**
Federer, Walter T. *See* **Raktoe, B. L.; et al., 82a:62124** *and* **Joiner, J.; et al., 82c:62105**
Ghosh, Subir On robustness of optimal balanced resolution V plans. **82m:62180**
Gupta, Bhisham Chand Checks on Yates's algorithm for a 2^m factorial experiment. **82k:62150**
Ishii, Goro On a test of interactions in factorial experimental designs with two factors and missing plots. **82b:62094**
Joiner, J. (*with* Raktoe, B. L.; Federer, Walter T.) On sum composition of fractional factorial designs. **82c:62105**
Kuwada, Masahide (*with* Nishii, Ryuei) On a connection between balanced arrays and balanced fractional s^m factorial designs. **82c:62106**
Characteristic polynomials of the information matrices of balanced fractional 3^m factorial designs of resolution V. **82h:62127**
See also **Yamamoto, Sumiyasu; et al., 82b:62096**
Mohan, N. R. A criterion for connectedness in two-associate class PBIB designs. **82h:62128**
Nishii, Ryuei *See* **Kuwada, Masahide, 82c:62106**
Pesotan, H. (*with* Raktoe, B. L.) Further results on invariance and randomization in fractional replication. **82g:62111**
See also **Raktoe, B. L.; et al., 82a:62124**
Raktoe, B. L. (*with* Pesotan, H.; Federer, Walter T.) On aliasing and generalized defining relationships of factorial arrangements. (French summary) **82a:62124**
See also **Joiner, J.; et al., 82c:62105** *and* **Pesotan, H., 82g:62111**
Rasmuson, D. M. *See* **Srivastava, J. N., 82b:62095**
Santner, Thomas J. Designing two-factor experiments for selecting interactions. **82g:62112**
Shirakura, Teruhiro Optimal balanced fractional 2^m factorial designs of resolution IV derived from balanced arrays of strength four. **82f:62146**
See also **Yamamoto, Sumiyasu; et al., 82b:62096**
Srivastava, J. N. (*with* Rasmuson, D. M.) Some good new confounded designs with two or three factors. **82b:62095**
Thomas, Ann M. *See* **Anderson, Donald A., 82a:62123** *and* **82b:62093**
Yamamoto, Sumiyasu (*with* Shirakura, Teruhiro; Kuwada, Masahide) Characteristic polynomials of the information matrices of balanced fractional 2^m factorial designs of higher $(2l+1)$ resolution. **82b:62096**

secondary classifications:

Hamada, Noboru (*with* Tamari, Fumikazu) Construction of optimal codes and optimal fractional factorial designs using linear programming. **(82i:94019)**
Mukhopadhyay, A. C. On the property P_t and balanced asymmetrical factorial plans. **(82d:05042)**
Pal, Satyabrata Some methods of construction of second order rotatable designs. **(82d:05035)**
Tamari, Fumikazu *See* **Hamada, Noboru, (82i:94019)**

62K99 None of the above, but in this section

Abdelbasit, K. M. (*with* Plackett, R. L.) Experimental design for categorized data. (French summary) **82k:62151**
Bailey, R. A. A unified approach to design of experiments. **82h:62129**
See also **Preece, D. A.; et al., 82k:62153**
Baksalary, Jerzy K. (*with* Kala, Radosław) On connectedness of ordinary two-way elimination of heterogeneity designs. **82a:62125**
Bruvold, Norman T. Admissible designs for polynomial monospline regression. **82h:62130**
Fang, Kai Tai Uniform design: an application of number-theoretic methods to experimental designs. (Chinese) **82k:62152**
Goel, B. S. Designs for restricted exploration in mixture experiments. **82e:62121**
Kabe, D. G. *See* **Shah, Shantilal M., 82j:62060**
Kala, Radosław *See* **Baksalary, Jerzy K., 82a:62125**
Mitra, R. K. On G-efficiency of some second order rotatable designs. **82m:62181**
Patterson, H. D. *See* **Preece, D. A.; et al., 82k:62153**
(Penenko, V. V.) *See* **Mathematical methods for the design of experiments, 82f:62147**
Plackett, R. L. *See* **Abdelbasit, K. M., 82k:62151**
Preece, D. A. (*with* Bailey, R. A.; Patterson, H. D.) A randomization problem in forming designs with superimposed treatments. **82k:62153**
Ratcliff, D. *See* **Williams, E. R., 82c:62107**
Seiden, Esther On the number of nonisomorphic designs in a repeated measurement experiment. **82a:62126**
Shah, Shantilal M. (*with* Kabe, D. G.) Some constructions of semiregular group divisible designs. **82j:62060**
Williams, E. R. (*with* Ratcliff, D.) A note on the analysis of lattice designs with repeats. **82c:62107**
Wu, Chien Fu On the robustness and efficiency of some randomized designs. **82m:62182**
Mathematical methods for the design of experiments ★Математические методы планирования эксперимента. (Russian) [Mathematical methods for the design of experiments] **82f:62147**

secondary classifications:

Bartlett, M. S. A further note on the use of neighbouring plot values in the analysis of field experiments. **(82d:62119)**
Bourke, P. D. On the analysis of some multivariate randomized response designs for categorical data. **(82h:62017)**
Das, Mihir Nath (*with* Giri, Narayan C.) ★Design and analysis of experiments. **(82k:62002)**
Giri, Narayan C. *See* **Das, Mihir Nath, (82k:62002)**
Grafarend, E. W. Third-order design of geodetic networks. **(82j:86004)**
Kageyama, Sanpei On μ-resolvable and affine μ-resolvable t-designs. **(82b:05026)**
Schaffrin, Burkhard A study of the second-order design problem in geodetic networks. **(82j:86008)**
Swensen, Anders Rygh Deficiencies between linear normal experiments. **(82e:62009)**
Yanagawa, Takashi Validity and efficiency of matching: categorical matching vs. unmatched design in a case-control study in epidemiology. **(82f:62187)**

62Lxx Sequential methods

62L05 Sequential design

Asao, Masashi *See* **Ohta, Hiroshi; et al., 82k:62157**
Berry, Donald A. (*with* Fristedt, Bert) Two-armed bandits with a goal. I. One arm known. **82g:62113a**
(*with* Fristedt, Bert) Two-armed bandits with a goal. II. Dependent arms. **82g:62113b**
Eichhorn, B. H. (*with* Zacks, Shelemyahu) Bayes sequential search of an optimal dosage: linear regression with both parameters unknown. **82k:62154**
Eisenberg, Bennett (*with* Ghosh, B. K.) On the sample size of curtailed tests. **82i:62116**
Ferrari, Pier Alda Wald's sequential test in sampling with randomized response. (Italian. English and French summaries) **82c:62108**
Ford, I. (*with* Silvey, Samuel David) A sequentially constructed design for estimating a nonlinear parametric function. **82k:62155**
Fristedt, Bert *See* **Berry, Donald A., 82g:62113**
Ghosh, B. K. *See* **Eisenberg, Bennett, 82i:62116**
Glazebrook, K. D. On randomized dynamic allocation indices for the sequential design of experiments. **82h:62099**
Hart, A. A. M. *See* **Nagelkerke, N. J. D.; et al., 82m:62184**
Hayre, Lakhbir S. (*with* Turnbull, Bruce W.) A class of simple approximate sequential tests for adaptive comparison of two treatments. **82m:62183**
Kase, Shigeo *See* **Ohta, Hiroshi; et al., 82k:62157**
Le Cam, L. A reduction theorem for certain sequential experiments. **82d:62125a**
A reduction theorem for certain sequential experiments. II. **82d:62125b**
Nagao, Hisao On stopping times of sequential estimations of the mean of a log-normal distribution. **82k:62156**
Nagelkerke, N. J. D. (*with* Hart, A. A. M.; Strackee, J.) Sample sizes in sequential survival clinical trials. **82m:62184**
Nash, Peter A generalized bandit problem. **82b:62098**
Ohta, Hiroshi (*with* Kase, Shigeo; Asao, Masashi) Classification of inspectors in sensory tests by Wald's sequential sampling technique. **82k:62157**
Silvey, Samuel David *See* **Ford, I., 82k:62155**
Strackee, J. *See* **Nagelkerke, N. J. D.; et al., 82m:62184**
Turnbull, Bruce W. *See* **Hayre, Lakhbir S., 82m:62183**
Vanderbei, R. J. The optimal choice of a subset of a population. **82d:62126**
Whittle, P. Multi-armed bandits and the Gittins index. **82b:62097**
Woodroofe, Michael A one-armed bandit problem with a concomitant variable. **82h:62100**
Zacks, Shelemyahu *See* **Eichhorn, B. H., 82k:62154**

secondary classifications:

Arkles, L. (*with* Srinivasan, R.) On the sequential selection of the better of two binomial populations. **(82f:62048)**
Bather, John On the sequential construction of an optimal age replacement policy. (French summary) **(82g:62131)**
Fleischer, Wolfgang Zweistufige Schätzverfahren für den Begrenzungsparameter der Gleichverteilung. **(82g:62048)**
Gulati, Chandra M. Finding the replaced population. **(82i:62041)**
Kelm, R. Graph methods within the optimal design of geodetic nets. **(82j:86005)**
Mehta, Cyrus R. Sequential comparison of two exponential distributions with censored survival data. **(82m:62228)**
Srinivasan, R. *See* **Arkles, L., (82f:62048)**
Tamaki, Mitsushi Optimal selection with two choices—full information case. **(82b:93035)**

62L10 Sequential analysis

Bandyopadhyay, Uttam Semisequential nonparametric tests for two populations with one sample size fixed. **82a:62127**
Bather, John Randomised allocation of treatments in sequential trials. **82i:62117**
Begg, Colin B. (*with* Mehta, Cyrus R.) Sequential analysis of comparative clinical trials. **82h:62131**

Brown, L. D. (*with* Cohen, Arthur; Strawderman, William E.) Monotonicity of Bayes sequential tests. **82a:62128**
Chang, H. H. Peter Asymptotic expected inferior sample size of a sequential test involving two populations. **82i:62118**
Cohen, Arthur *See* **Brown, L. D.; et al., 82a:62128**
DeLong, David M. Crossing probabilities for a square root boundary by a Bessel process. **82i:62119**
Demets, David L. (*with* Ware, James H.) Group sequential methods for clinical trials with a one-sided hypothesis. **82e:62122**
Döhler, Raimund Dominierbarkeit und Suffizienz in der Sequentialanalyse. (English and Russian summaries) **82f:62148**
Ghosh, Malay (*with* Sen, Pranab Kumar) Asymptotic theory of sequential tests based on linear functions of order statistics. **82b:62101**
Hayre, Lakhbir S. An asymptotically Bayes sequential test for comparing two normal means. **82e:62123**
Hazen, È. M. Informational estimates for risk increase in reduction of observable data in problems of statistical sequential analysis and the construction of suboptimal decision rules. (Russian) **82e:62124**
Krylov, N. V. (*with* Mirošničenko, T. P.) Extension of the region of optimality of Wald's test. (Russian. English summary) **82h:62132**
Lai, Tze Leung Asymptotic optimality of invariant sequential probability ratio tests. **82g:62114**
Meeker, William Q., Jr. A conditional sequential test for the equality of two binomial proportions. **82i:62120**
Mehta, Cyrus R. *See* **Begg, Colin B., 82h:62131**
Mirošničenko, T. P. *See* **Krylov, N. V., 82h:62132**
Preda, Vasile Iterative criteria for the sequential decision problem. I. The iterative minimax criterion. (Romanian. English summary) **82d:62127a**
Iterative criteria for the sequential decision problem. II. The iterative Bayesian criterion in the strict sense. (Romanian. English summary) **82d:62127b**
Iterative criteria for the sequential decision problem. III. The iterative Bayesian criterion in the wide sense. (Romanian. English summary) **82d:62127c**
Sen, Pranab Kumar *See* **Ghosh, Malay, 82b:62101** *and* **So, Ying Chiu, 82m:62185**
So, Ying Chiu (*with* Sen, Pranab Kumar) Repeated significance tests based on likelihood ratio statistics. **82m:62185**
Strawderman, William E. *See* **Brown, L. D.; et al., 82a:62128**
Takahashi, Hajime (*with* Woodroofe, Michael) Asymptotic expansions in nonlinear renewal theory. **82m:62186**
Volodin, I. N. Lower bounds for average sample size in the tests of goodness-of-fit and homogeneity. (Russian. English summary) **82e:62125**
Ware, James H. *See* **Demets, David L., 82e:62122**
Weiss, Lionel A simple sequential test for Hotelling's T^2 problem. **82a:62129**
Woodroofe, Michael *See* **Takahashi, Hajime, 82m:62186**

secondary classifications:

Bandyopadhyay, Uttam Corrigendum: "Semisequential nonparametric tests for two populations with one sample size fixed" [Calcutta Statist. Assoc. Bull. **29** (1980), no. 113-114, 45–64; MR 82a:62127]. **(82m:62027)**
Chow, Y. S. (*with* Hsiung, Chao Agnes; Yu, Kai Fun) Limit theorems for a positively drifting process and its related first passage times. **(82a:60127)**
Döhler, Raimund Fischersche Informationsmatrix bei sequentieller unabhängiger Stichprobennahme. **(82e:62008)**
Hsiung, Chao Agnes *See* **Chow, Y. S.; et al., (82a:60127)**
Krengel, Ulrich (*with* Sucheston, Louis) Stopping rules and tactics for processes indexed by a directed set. **(82i:60079)**
Marcus, Ruth A two-stage procedure for testing homogeneity of means against ordered alternatives in analysis of variance with unequal variances. **(82b:62025)**
Sucheston, Louis *See* **Krengel, Ulrich, (82i:60079)**
Yu, Kai Fun *See* **Chow, Y. S.; et al., (82a:60127)**

62L12 Sequential estimation

Berk, Robert H. (*with* Brown, L. D.; Cohen, Arthur) Properties of Bayes sequential tests. **82g:62115**
Brown, L. D. *See* **Berk, Robert H.; et al., 82g:62115**
Carroll, Raymond J. On sequential estimation of the largest normal mean when the variance is known. **82c:62109**
Chow, Y. S. (*with* Yu, Kai Fun) The performance of a sequential procedure for the estimation of the mean. **82m:62187**
Cohen, Arthur *See* **Berk, Robert H.; et al., 82g:62115**
Efroimovič, S. Ju. Sequential estimation under conditions of local asymptotic normality. (Russian. English summary) **82e:62126**
Ghosh, Malay (*with* Mukhopadhyay, Nitis) Sequential point estimation of the difference of two normal means. **82b:62102**
Jurečková, Jana Bounded-length sequential confidence intervals for regression and location parameters. **82c:62110**
Knerr, Barry F. A singular free boundary problem. **82c:62111**
Mihalko, Daniel (*with* Tong, Yung Liang) A sequential regression method in Monte Carlo studies. **82a:62130**
Mukhopadhyay, Nitis A consistent and asymptotically efficient two-stage procedure to construct fixed width confidence intervals for the mean. **82j:62061**
See also **Ghosh, Malay, 82b:62102**
Nagao, Hisao Note on the limiting distribution of stopping time. **82e:62127**
Rasmussen, Shelley L. A Bayesian approach to a problem in sequential estimation. **82a:62131**
Sierociński, Andrzej On fixed precision estimation of the maximal value of a random variable. **82d:62128**
Tong, Yung Liang *See* **Mihalko, Daniel, 82a:62130**
Wang, Y. H. Sequential estimation of the mean of a multinormal population. **82b:62103**
Winkler, Wolfgang Sequential estimation in processes with independent increments. **82i:62121**
Wright, Tommy Truncated Bayes stratified sequential procedures. **82d:62129**
Yu, Kai Fun *See* **Chow, Y. S., 82m:62187**

secondary classifications:

Benveniste, Albert Introduction à la méthode de l'équation différentielle moyenne pour l'étude des algorithmes récursifs. Exemples. **(82b:93056)**
Evans, I. G. (*with* Jones, Peter Watts) Bayesian inferences for the two parameter uniform distribution. (German and Russian summaries) **(82m:62078)**
Fabian, Václav Some recent results in stochastic approximation. (French summary) **(82k:62158)**
Goldstein, Michael A Bayesian criterion for sample size. **(82h:62060)**
Jennen, Christel (*with* Lerche, Hans Rudolf) First exit densities of Brownian motion through one-sided moving boundaries. **(82k:60157)**
Jones, Peter Watts *See* **Evans, I. G., (82m:62078)**
Lerche, Hans Rudolf *See* **Jennen, Christel, (82k:60157)**
Prakasa Rao, B. L. S. Sequential nonparametric estimation of density via delta-sequences. **(82m:62095)**
Strejc, Vladimír Least squares parameter estimation. **(82b:93038)**
West, M. Robust sequential approximate Bayesian estimation. **(82h:62166)**

62L15 Optimal stopping [See also 60G40.]

Barzily, Z. *See* **Zacks, Shelemyahu, 82h:62136**
Bouza Herrera, Carlos Stopping rules under sequential criteria. (Spanish) **82f:62149**
Campbell, Gregory (*with* Samuels, Stephen M.) Choosing the best of the current crop. **82h:62133**
Cochlar, Jiří Optimum stopping rules on the sequence of statistically dependent vectors. **82h:62134**
Friedman, Avner Variational inequalities in sequential analysis. **82f:62150**
Hamada, Toshio A uniform two-armed bandit problem: the parameter of one distribution is known. **82e:62128**
Heckendorff, H. Sequential statistical structures. **82d:62130**
Hengartner, Walter (*with* Kalin, Dieter; Theodorescu, Radu) On the Bernoulli two-armed bandit problem. (German and French summaries) **82f:62151**
Irle, Albrecht Locally most powerful sequential tests for stochastic processes. **82m:62188**
Kalin, Dieter *See* **Hengartner, Walter; et al., 82f:62151**
Petruccelli, Joseph D. Best-choice problems involving uncertainty of selection and recall of observations. **82h:62135**
Samuels, Stephen M. *See* **Campbell, Gregory, 82h:62133**
Theodorescu, Radu *See* **Hengartner, Walter; et al., 82f:62151**
Tkebučava, R. S. On an optimal stopping problem with small "noise". (Russian. Georgian and English summaries) **82m:62189**
Zacks, Shelemyahu (*with* Barzily, Z.) Bayes procedures for detecting a shift in the probability of success in a series of Bernoulli trials. **82h:62136**

secondary classifications:

Bartoszyński, Robert (*with* Govindarajulu, Z.) A note on the secretary problem. **(82a:60058)**
Golabi, Kamal An inventory model with search for best ordering price. **(82c:90029)**
Govindarajulu, Z. *See* **Bartoszyński, Robert, (82a:60058)**
Irle, Albrecht Transitivity in problems of optimal stopping. **(82i:60078)**
Lorenzen, Thomas J. Optimal stopping with sampling cost: the secretary problem. **(82g:60056)**
Monahan, George E. Optimal stopping in a partially observable Markov process with costly information. **(82i:90117)**
Rasmussen, Shelley L. A Bayesian approach to a problem in sequential estimation. **(82a:62131)**
Sakaguchi, Minoru (*with* Tamaki, Mitsushi) Optimal stopping problems associated with a nonhomogeneous Markov process. **(82f:60094)**
Stettner, Ł. (*with* Zabczyk, J.) Strong envelopes of stochastic processes and a penalty method. **(82e:60081)**
Tamaki, Mitsushi *See* **Sakaguchi, Minoru, (82f:60094)**
Zabczyk, J. *See* **Stettner, Ł., (82e:60081)**
Zuckerman, Dror Optimal stopping in terminating one-sided processes with unbounded reward functions. (German summary) **(82e:60073)**
Decision making processes and related fields ★Decision making processes and related fields. (Japanese) **(82a:90003)**
Symposium:
Decision Making Processes and Related Fields ★Decision making processes and related fields. (Japanese) **(82a:90003)**

62L20 Stochastic approximation

Al'ber, Ja. I. (*with* Šil'man, S. V.) On stochastic approximation methods. (Russian) **82e:62129**
Antonov, S. N. A property of Robbins-Monro procedures of stochastic approximation. (Russian) **82e:62130**
Bondarev, B. V. Inequalities of large deviations for continuous procedures of stochastic approximation. (Russian) **82m:62190**
Fabian, Václav Some recent results in stochastic approximation. (French summary) **82k:62158**
Farden, David C. Stochastic approximation with correlated data. **82f:62152**
Györfi, László Stochastic approximation from ergodic sample for linear regression. **82e:62131**
Hanson, David Lee (*with* Russo, Ralph P.) A new stochastic approximation procedure using quantile curves. **82j:62062**
Huang, Hai *See* **Kushner, Harold J., 82e:62133**
Kaniovskaja, I. Ju. Convergence of random processes generated by a stochastic approximation procedure for random processes. (Russian) **82e:62132**

Convergence of random processes generated by a procedure of the stochastic approximation type. (Russian) **82h:62137**

Recurrent stochastic algorithms with nonsmooth regression functions. (Russian. English summary) **82e:62112**

Kaniovskiĭ, Ju. M. The rate of uniform convergence of distribution functions of normalized iterations of numerical stochastic recurrent methods. (Russian) **82c:62113**

Kersting, Götz Some results on the asymptotic behaviour of the Robbins-Monro procedure. (French summary) **82j:62063**

Koronacki, Jacek Some remarks on stochastic approximation methods. **82c:62114**

Kusano, Shinako An application of stochastic approximation to fixed points in the Hilbert space. (Japanese) **82m:62191**

Kushner, Harold J. (*with* Huang, Haĭ) Asymptotic properties of stochastic approximations with constant coefficienis. **82e:62133**

Mustafaev, È. H. Adaptive Robbins-Monro procedure in the case of continuous time. **82h:62138**

Nevel'son, M. B. A property of distributions of the Robbins-Monro process with continuous time. (Russian) **82e:62134**

Nguyen Huu Tien On the accelerated stochastic approximation. **82k:62159**

Pflug, Georg Some remarks on stochastic approximation. **82e:62135**

Optimale sequentielle Zerlegung. (English and Russian summaries) **82b:62104**

Russo, Ralph P. *See* **Hanson, David Lee**, **82j:62062**

Šil'man, S. V. *See* **Al'ber, Ja. I.**, **82e:62129**

Szabłowski, Paweł J. Application of the generalized strong laws of large numbers to the proper choice of the amplification coefficients in stochastic approximation with correlated disturbances. **82h:62139**

Zieliński, Ryszard Global stochastic approximation: a review of results and some open problems. **82c:62115**

secondary classifications:

Agafonov, S. A. (*with* Krasulina, T. P.; Fomin, V. N.) A method of stochastic approximation in the problem of identification of a linear dynamical object. (Russian. English summary) **(82h:93023)**

Ahmad, Ibrahim A. On the Berry-Esseen theorem for random U-statistics. **(82c:60032)**

Anisimova, Z. P. On the convergence of multidimensional nonhomogeneous procedures of stochastic approximation. (Russian. English summary) **(82f:60131)**

Benveniste, Albert (*with* Crépel, Pierre) Normalité asymptotique: approximation diffusion pour les algorithmes récursifs: et applications. **(82j:60102)**

Clark, Dean S. A stochastic difference equation. **(82f:60148)**

Crépel, Pierre *See* **Benveniste, Albert**, **(82j:60102)**

Fomin, V. N. *See* **Agafonov, S. A.; et al.**, **(82h:93023)**

Kannan, Rangachary Stochastic approximation and nonlinear operator equations. **(82b:60077)**

Krasulina, T. P. *See* **Agafonov, S. A.; et al.**, **(82h:93023)**

Kusano, Shinako Stochastic approximation in Banach space and its application to solution searching of random functional equations. **(82a:60097)**

Morozan, T. On the convergence of some random processes related to stochastic approximation. **(82e:60055)**

62L99 None of the above, but in this section

Diaconis, Persi (*with* Graham, Ronald) The analysis of sequential experiments with feedback to subjects. **82f:62153**

Graham, Ronald *See* **Diaconis, Persi**, **82f:62153**

secondary classifications:

Singer, Michael F. Liouvillian solutions of nth order homogeneous linear differential equations. **(82i:12028)**

Yu, Kai Fun Note on a theorem of Woodroofe's. **(82j:60042)**

62Mxx Inference from stochastic processes

Brillinger, David R. ★Time series. **82a:62132**

62M02 Markov processes: hypothesis testing

Edwards, David G. Large sample tests for stationarity and reversibility in finite Markov chains. **82e:62136**

Evans, G. B. A. (*with* Savin, N. E.) Testing for unit roots. I. **82g:62116**

Gupta, Sunita *See* **Gupta, Y. P.**, **82m:62192**

Gupta, Y. P. (*with* Gupta, Sunita) Chi-square goodness of fit test for equilibrium Markov renewal process. **82m:62192**

Mirošničenko, T. P. Testing of two simple hypotheses in the presence of delayed observations. (Russian. English summary) **82j:62064**

Savin, N. E. *See* **Evans, G. B. A.**, **82g:62116**

secondary classifications:

Akritas, Michael G. (*with* Roussas, G. G.) Asymptotic inference in continuous time Markov processes. **(82k:62161)**

(*with* Johnson, Richard A.) Asymptotic inference in Lévy processes of the discontinuous type. **(82k:62160)**

Jahn, W. *See* **Langrock, P.**, **(82a:60100)**

Johnson, Richard A. *See* **Akritas, Michael G.**, **(82k:62160)**

Langrock, P. (*with* Jahn, W.) ★Einführung in die Theorie der Markovschen Ketten und ihre Anwendungen. (German) [Introduction to the theory of Markov chains and its applications] **(82a:60100)**

Roussas, G. G. *See* **Akritas, Michael G.**, **(82k:62161)**

62M05 Markov processes: estimation

Adke, S. R. (*with* Swamy, R. J. R.) Some problems of inference about Markov sequences with exponential type transition densities. **82f:62154**

(*with* Dharmadhikari, S. R.) The maximum likelihood estimation of coefficient of diffusion in a birth and diffusion process. **82b:62105**

Maximum likelihood estimation for a branching diffusion process. (Russian. English summary) **82a:62133**

See also **Bhat, B. Ramdas**, **82i:62122**

Akritas, Michael G. (*with* Roussas, G. G.) Asymptotic inference in continuous time Markov processes. **82k:62161**

(*with* Johnson, Richard A.) Asymptotic inference in Lévy processes of the discontinuous type. **82k:62160**

Baranov, V. V. A method in the statistics of random processes. (Russian) **82d:62131**

Bauer, Ch. Estimation of the parameter of the continuous drift coefficient for processes of diffusion type. (Russian. German summary) **82b:62106**

Bellach, Bärbel Consistency, asymptotic normality and asymptotic efficiency of the maximum-likelihood-estimator in linear stochastic differential equations. (German and Russian summaries) **82g:62117**

Bhat, B. Ramdas (*with* Adke, S. R.) Maximum likelihood estimation for branching processes with immigration. **82i:62122**

Dharmadhikari, S. R. *See* **Adke, S. R.**, **82b:62105**

Gamber, Heather A. Choice of an optimal shape parameter when smoothing noisy data. **82d:62132**

Confidence regions for periodic functions. **82d:62133**

Gaver, Donald P. (*with* Lewis, P. A. W.) First-order autoregressive gamma sequences and point processes. **82e:62137**

Gelfand, Alan E. An estimation problem with Poisson processes. **82k:62162**

Gillert, Heinz Maximum-likelihood-Schätzungen für Parameter in stückweise linearen Markovschen Prozessen. II. **82d:62134**

Ibramhalilov, I. Š. (*with* Skorohod, A. V.) ★Состоятельные оценки параметров случайных процессов. (Russian) [Consistent estimators of parameters of random processes] **82h:62140**

Johnson, Richard A. *See* **Akritas, Michael G.**, **82k:62160**

Kaštanov, Ju. N. Some ways of reducing variance in estimation of functionals of the stationary distribution of a Markov chain by the Monte Carlo method. (Russian. English summary) **82i:62123**

Kelton, Christina M. L. Estimation of time-independent Markov processes with aggregate data: a comparison of techniques. **82f:62155**

Lewis, P. A. W. *See* **Gaver, Donald P.**, **82e:62137**

Lin'kov, Ju. M. Estimates for the nonlinear parameter in the drift of a diffusion process. (Russian) **82f:62156**

(MacRae, E. C.) *See* **Kelton, Christina M. L.**, **82f:62155**

Mockus, Jonas (*with* Senkienė, Elvyra) Estimate of mathematical expectation of a Gaussian random field from observations at dependent random points. (Russian. Lithuanian and English summaries) **82e:62138**

Pham Dinh Tuan Nonparametric estimation of the drift coefficient in the diffusion equation. (German and Russian summaries) **82f:62157**

Pugačev, V. S. Estimation of Markov processes. **82b:62107**

Roussas, G. G. *See* **Akritas, Michael G.**, **82k:62161**

Senkienė, Elvyra *See* **Mockus, Jonas**, **82e:62138**

Skorohod, A. V. *See* **Ibramhalilov, I. Š.**, **82h:62140**

Swamy, R. J. R. *See* **Adke, S. R.**, **82f:62154**

Wright, A. L. Nonexistence of complete sufficient statistics for stationary k-state Markov chains, $k \geq 3$. **82a:62134**

secondary classifications:

Badalbaev, I. S. (*with* Žuraev, Ju.) Properties of an estimate for the eigenvalue of the matrix of expectations of a multitype branching process beginning with a large number of particles. (Russian) **(82a:60122)**

Berg, Lothar Über Gaußsche Markov-Prozesse als Wachstumsmodelle. (English summary) [Gaussian Markov processes as growth models] **(82m:60041)**

Čukova-Dančeva, S. *See* **Janev, N. M.**, **(82c:60146)**

Hairullin, R. H. Estimation of the criticality parameter of a branching process with n types of particles. (Russian) **(82a:60124)**

(Herer, Wojciech) *See* **Lipcer, R. Š.; et al.**, **(82c:60061)**

Jahn, W. *See* **Langrock, P.**, **(82a:60100)**

Janev, N. M. (*with* Čukova-Dančeva, S.) On the statistics of branching processes with immigration. **(82c:60146)**

Langrock, P. (*with* Jahn, W.) ★Einführung in die Theorie der Markovschen Ketten und ihre Anwendungen. (German) [Introduction to the theory of Markov chains and its applications] **(82a:60100)**

Lipcer, R. Š. (*with* Širjaev, A. N.) ★Statystyka procesów stochastycznych. (Polish) [Statistics of random processes] **(82c:60061)**

Širjaev, A. N. *See* **Lipcer, R. Š.**, **(82c:60061)**

Vašek, Karol On the error exponent for ergodic Markov source. **(82f:94010)**

Winkler, Wolfgang Sequential estimation in processes with independent increments. **(82i:62121)**

Žuraev, Ju. *See* **Badalbaev, I. S.**, **(82a:60122)**

62M07 Non-Markovian processes: hypothesis testing

Basawa, I. V. Efficient conditional tests for mixture experiments with applications to the birth and branching processes. **82h:62141**

Berman, Mark Inhomogeneous and modulated gamma processes. **82g:62118**

Gabr, M. M. *See* **Subba Rao, T.**, **82f:62158**

Subba Rao, T. (*with* Gabr, M. M.) A test for linearity of stationary time series. **82f:62158**

secondary classifications:

Basawa, I. V. Remarks on Bahadur optimality of conditional tests. **(82a:62040)**
Burnett, R. T. (*with* Wasan, M. T.) The negative binomial point process and its inference. (*See* **81m:62005**)
Friedman, Avner Variational inequalities in sequential analysis. **(82f:62150)**
Irle, Albrecht Locally most powerful sequential tests for stochastic processes. **(82m:62188)**
Lin'kov, Ju. M. Asymptotic behavior of the probability of error of the likelihood ratio test in the discrimination of point processes with continuous compensators. (Russian) **(82k:62117)**
Wasan, M. T. *See* **Burnett, R. T.**, (*See* **81m:62005**)

62M09 Non-Markovian processes: estimation

Aalen, Odd O. A model for nonparametric regression analysis of counting processes. **82a:62135**
Basawa, I. V. (*with* Prabhu, N. U.) Estimation in single server queues. **82h:62142**
Biswas, K. K. *See* **Mahalanabis, A. K.; et al., 82h:62144**
Boltze, Lothar (*with* Näther, Wolfgang) Some remarks on experimental design for estimating the expectation of a stationary random process. **82m:62193**
Delecroix, Michel Sur l'estimation des densités d'un processus stationnaire et mélangeant. (English summary) **82f:62159**
Hanmandlu, M. *See* **Mahalanabis, A. K.; et al., 82h:62144**
Has'minskiĭ, R. Z. (*with* Ibragimov, I. A.) Some estimation problems for stochastic differential equations. **82h:62143**
See also **Ibragimov, I. A., 82d:62135**
Hietikko, Harri On the estimation of univariate Box-Jenkins models in the time domain. **82i:62124**
Ibragimov, I. A. (*with* Has'minskiĭ, R. Z.) On the estimation of a signal, its derivatives and the maximum point for Gaussian observations. (Russian. English summary) **82d:62135**
See also **Has'minskiĭ, R. Z., 82h:62143**
Inselmann, Edmond H. Regression for Markov Bernoulli random variables. **82a:62136**
Kuricyn, Ju. G. On the singularity of the best linear unbiased estimate of the mean value of a stationary process. (Russian. English summary) **82m:62194**
Lee, Larry Estimating quantiles of the cumulative mean function of the nonhomogeneous Poisson process. **82d:62136**
Ljal'ko, S. B. Asymptotic properties of pseudo-optimal estimates for the mean of homogeneous random fields. (Russian. English summary) **82e:62139**
Mahalanabis, A. K. (*with* Hanmandlu, M.; Biswas, K. K.) On modelling and forecasting of vector stochastic processes. **82h:62144**
Mühleis, Wiltrud (*with* Wittwer, Gisela) Minimum-Kontrast-Schätzungen für stochastische Prozesse. (English and Russian summaries) **82f:62160**
Näther, Wolfgang *See* **Boltze, Lothar, 82m:62193**
Prabhu, N. U. *See* **Basawa, I. V., 82h:62142**
Štulajter, František Locally best unbiased estimates of functionals of covariance functions of a Gaussian stochastic process. **82e:62140**
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secondary classifications:

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Nerlove, Marc (*with* Grether, David M.; Carvalho, José L.) ★Analysis of economic time series. **(82g:90031)**
Ng, Tung Sang (*with* Qureshi, Zahid H.) Optimal experiment design for autoregressive model with output power constraints. **(82i:62110)**
Nour, El-Sayed E. *See* **Wegman, Edward J.; et al., (82i:62145)**
O'Neill, Daniel E. *See* **Bruggeman, Werner, (82d:62165)**
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Robinson, Enders A. ★Physical applications of stationary time-series. **(82d:94001)**
Sakai, Hideaki (*with* Tokumaru, Hidekatsu) Autocorrelation of certain chaos. **(82g:58060)**
Schmalensee, R. *See* **Ashley, Richard; et al., (82h:90036)**
Stensholt, Eivind (*with* Tjøstheim, Dag) Factorizing multivariate time series operators. **(82j:60059)**
Talahadze, M. V. Estimates of linear regression coefficients with a finite number of parameters. (Russian) **(82f:62128)**
Tjøstheim, Dag *See* **Stensholt, Eivind, (82j:60059)**
Tokumaru, Hidekatsu *See* **Sakai, Hideaki, (82g:58060)**
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Conference:
Time Series Analysis ★Time series analysis. **(82k:62005)**
Houston, Tex. ★Time series analysis. **(82k:62005)**
Meeting:
Time Series ★Time series analysis. **(82k:62005)**
Time series analysis ★Time series analysis. **(82k:62005)**

62M15 Spectral analysis of time series

Alekseev, V. G. Error of the spectral density estimation for a Gaussian random process. (Russian. English summary) **82e:62151**
(*with* Jaglom, A. M.) Nonparametric and parametric spectrum estimation methods for stationary time series. **82m:62210**
Estimates of certain functionals of the spectral density of Gaussian random processes. (Russian. English summary) **82d:62142**
Bera, Anil K. *See* **Jarque, Carlos M., 82e:62153**
Brillinger, David R. The comparison of least squares and third-order periodogram procedures in the estimation of bifrequency. **82k:62176**
Capon, J. Maximum-likelihood spectral estimation. (*See* **82j:62069**)
Carbon, Michel Sur la convergence uniforme presque sûre des estimateurs de la densité spectrale des processus stationnaires et mélangeants. Application à l'erreur de prédiction linéaire. (English summary) **82d:62143**
Chen, Zhao Guo (*with* Hannan, E. J.) The distribution of periodogram ordinates. **82j:62068**
Dargahi-Noubary, G. R. (*with* Laycock, P. J.) Spectral ratio discriminants and information theory. **82m:62211**
Davidovič, S. S. Efficient estimation of the parameters of the trend and spectrum of a stationary sequence. (Russian. English summary) **82e:62152**
Deistler, Manfred Parameterization and consistent estimation of ARMA systems. **82c:62126**
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Enăchescu, D. M. Digital methods in estimating spectral densities. (French and Russian summaries) **82h:62167**
Farmer, Charles H. Planar Wiener inverses. **82a:62143**
Ginovjan, M. S. $\sqrt{n}$-approximation of the likelihood function. (Russian. English summary) **82c:62127**
Gordon, William B. Accuracy of linear spectral estimates of band-limited signals. **82m:62212**
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Hannan, E. J. Time series. **82h:62122**
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Haykin, Simon (*with* Kesler, S.) Prediction-error filtering and maximum-entropy spectral estimation. (*See* **82j:62069**)
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Helland, K. N. *See* **Lii, K. S., 82m:62213**
Huzii, Mituaki On an efficient estimate of correlogram. **82b:62123**
Jaglom, A. M. *See* **Alekseev, V. G., 82m:62210**
Jarque, Carlos M. (*with* Bera, Anil K.) Efficient tests for normality, homoscedasticity and serial independence of regression residuals. **82e:62153**
Kabaila, Paul V. An optimality property of the least-squares estimate of the parameter of the spectrum of a purely nondeterministic time series. **82c:62129**
Kazakos, Dimitri New convergence bounds for Bayes estimators. **82e:62154**
Kesler, S. *See* **Haykin, Simon, (*See* 82j:62069)**
Kligienė, Nerutė On the asymptotic separability of two Gaussian sequences. **82f:62175**
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Lii, K. S. (*with* Helland, K. N.) Cross-bispectrum computation and variance estimation. **82m:62213**
Masry, Elias Discrete-time spectral estimation of continuous-time processes—the orthogonal series method. **82g:62128**
Nakatsuka, Toshinao Nonexistence of estimates which minimize $x'V^{-1}x$ in an exponential type of stationary time series. **82m:62214**

Praetz, Peter D. Testing for a flat spectrum on efficient market price data. **82c:62130**
Robinson, Enders A. Iterative least-squares procedure for ARMA spectral estimation. (*See* **82j:62069**)
Shaman, Paul Approximate maximum likelihood estimation of a step function spectral density. **82b:62124**
Shibata, Ritei An optimal autoregressive spectral estimate. **82f:62176**
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Žurbenko, I. G. Optimal properties of some spectral density statistics. (Russian. Lithuanian and English summaries) **82e:62155**
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Spectral analysis ★Nonlinear methods of spectral analysis. **82j:62069**

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Alekseev, V. G. On the problem of detecting the trend of a stationary random process. (Russian. Lithuanian and English summaries) **(82k:60075)**
Deaton, Michael L. (*with* Foutz, Robert V.) Group delay and the time-lag relationship between stochastic processes. **(82h:62073)**
Foutz, Robert V. *See* **Deaton, Michael L., (82h:62073)**
Gardner, W. A. Cyclo-ergodicity. I. Application to spectral extraction. **(82h:62150)**
Haykin, Simon Introduction. (*See* **82j:62069**)
Ishii, Naohiro (*with* Iwata, Akira; Suzumura, Nobuo) Bilateral exponential smoothing of time series. **(82h:93082)**
Iwata, Akira *See* **Ishii, Naohiro; et al., (82h:93082)**
Ooe, M. *See* **Ulrych, T. J., (*See* 82j:62069)**
Parzen, Emanuel Time series modeling, spectral analysis, and forecasting. **(82h:62159)**
Smyšljaeva, L. G. The relation between spectral densities of continuous and discrete random processes. (Russian. Kazakh summary) **(82e:62072)**
Suzumura, Nobuo *See* **Ishii, Naohiro; et al., (82h:93082)**
Tukey, John W. Can we predict where "time series" should go next? **(82h:62165)**
Ulrych, T. J. (*with* Ooe, M.) Autoregressive and mixed autoregressive-moving average models and spectra. (*See* **82j:62069**)

62M20 Prediction [See also 60G25.]; filtering [See also 60G35, 93E10, 93E11.]

Anděl, Jiří On extrapolation in multiple ARMA processes. **82e:62131**
Bhansali, R. J. Correction to: "Asymptotic properties of the Wiener-Kolmogorov predictor. I" [J. Roy. Statist. Soc. Ser. B **36** (1974), 61–73; MR **51** #4606]. **82d:62145**
Biswas, K. K. *See* **Sheel, Satya; et al., 82m:62216**
Fuller, Wayne A. (*with* Hasza, David P.) Properties of predictors for autoregressive time series. **82c:62132**
Geisser, Seymour Sample reuse procedures for prediction of the unobserved portion of a partially observed vector. **82k:62178**
Hannan, E. J. (*with* Nicholls, D. F.) Corrigenda: "The estimation of the prediction error variance" [J. Amer. Statist. Assoc. **72** (1977), no. 360, part 1, 834–840; MR **58** #24804]. **82a:62144**
Has'minskiĭ, R. Z. *See* **Ibragimov, I. A., 82c:62133**
Hasza, David P. *See* **Fuller, Wayne A., 82c:62132**
Ibragimov, I. A. (*with* Has'minskiĭ, R. Z.) Asymptotic properties of some nonparametric estimates in Gaussian white noise. (Russian) **82c:62133**
Krickeberg, Klaus Statistical problems on point processes. **82e:62156**
Mallows, C. L. Resistant smoothing. **82e:62157**
Nicholls, D. F. *See* **Hannan, E. J., 82a:62144**
Sheel, Satya (*with* Biswas, K. K.; Sinha, A. K.) Modelling and prediction of stochastic processes involving periodicity. **82m:62216**
Sinha, A. K. *See* **Sheel, Satya; et al., 82m:62216**
Souza, R. C. A Bayesian entropy approach to forecasting: the multistate model. (*See* **82k:62005**)
Srivastava, M. S. Effect of equicorrelation in detecting a spurious observation. (French summary) **82g:62129**
Swamy, P. A. V. B. (*with* Tinsley, P. A.) Linear prediction and estimation methods for regression models with stationary stochastic coefficients. **82k:62179**
Talahadze, M. V. Spectral analysis of an estimate of the unobservable component in a partially observable process. (Russian. Georgian and English summaries) **82e:62158**
Tigelaar, Harm Hilgard ★Identification and informative sample size. **82k:62180**
Tinsley, P. A. *See* **Swamy, P. A. V. B., 82k:62179**
Venezia, Itzhak The covariance structure of sequential forecasts obtained by regression analysis. **82h:62168**
Yajima, Yoshihiro On an effect of overdifferencing on the prediction of ARIMA processes. **82a:62145**
Yamamoto, Taku Predictions of multivariate autoregressive-moving average models. **82j:62070**

secondary classifications:

Anděl, Jiří On extrapolation in two-dimensional stationary processes. **(82e:60068)**
Arimoto, Akio Asymptotic behavior of difference between a finite predictor and an infinite predictor for a weakly stationary stochastic process. **(82f:60085)**
Golosov, Ju. I. (*with* Punienė, J.) Confidence sets in a filtering problem that is solved by the method of least squares. (Russian. Lithuanian summary) **(82k:62068)**
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(*with* Kesler, S.) Prediction-error filtering and maximum-entropy spectral estimation. (*See* **82j:62069**)
Indjehagopian, J.-P. Application du filtre de Kalman à l'estimation du vecteur des paramètres d'un modèle de régression, évoluant au cours du temps et prévision. **(82d:62112)**
Kakihara, Yûichirô Stationary processes and information channels. **(82k:60076)**
Kesler, S. *See* **Haykin, Simon, (*See* 82j:62069)**
Liu, Lon Mu (*with* Hanssens, Dominique M.) A Bayesian approach to time-varying cross-sectional regression models. **(82h:62078)**
Ljung, Lennart Asymptotic theory of prediction error estimation methods. **(82h:93037)**
Malinov, V. A. (*with* Šil'man, S. V.) Adaptive estimation of the trend of parameters of complex systems. **(82k:93063)**
Mogha, Gyan V. Estimation du gain d'un filtre stationnaire de Kalman par l'intermédiaire du modèle ARMA associé. (English summary) **(82a:93061)**
Punienė, J. *See* **Golosov, Ju. I., (82k:62068)**
Radjuhin, V. T. Statistical significance of inferences based on values of measures of the quality of probabilistic forecasts. (Russian) **(82d:86004)**
Ramm, Alexander G. Linear filtering of certain vector-valued nonstationary random processes. (Russian) **(82a:60056)**
Scarpellini, Bruno Conditional expectations of stationary processes. **(82k:60080)**
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Sironvalle, Marco Alfaro The random coin method: solution of the problem of the simulation of a random function in the plane. **(82c:86010)**
Smyšljaeva, L. G. (*with* Vasil'eva, T. G.) Optimal estimate of a prediction in the case of first-order perturbations. (Russian. Kazakh summary) **(82h:60076)**
Taniguchi, Masanobu Regression and interpolation for time series. **(82a:62142)**
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Berlinet, Alain Une méthode de détermination des degrés d'un modèle ARMA. [A method for determining the degrees of an ARMA model] **82m:62217**
Gaver, Donald P. (*with* Jacobs, P. A.) On combinations of random loads. **82h:62169**
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(Špilevskiĭ, È. K.) *See* **Dynamical recognition of random processes and sequences, 82d:62146**
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Statistics ★Динамическое распознавание случайных процессов и последовательностей. (Russian) [Dynamical recognition of random processes and sequences] **82d:62146**

secondary classifications:

Barndorff-Nielsen, Ole (*with* Darroch, John) A stochastic model for sand sorting in a wind-tunnel. **(82f:62196)**
Darroch, John *See* **Barndorff-Nielsen, Ole, (82f:62196)**
Heyde, C. C. An optimal property of maximum likelihood with application to branching process estimation. (French summary) **(82k:62045)**
Puškin, L. N. Distribution of the functional $(1/T)\int_0^T x^2(t)\,dt$ from a Gauss'an stationary process with zero mean and correlation function $e^{-|t|}\cos at$. (Russian) **(82g:60055)**

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62N05 Reliability and life testing [See also 90B25.]

Abu-Salih, M. S. (*with* Awad, Adnan M.) Estimating the mean of a random parameter in reliability models. **82g:62130**
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Ahmad, Ibrahim A. Asymptotic properties of system reliability estimators. **82k:62181**
Anisimov, V. V. (*with* Volna, O. A.; Sereda, V. I.) Choice of optimal checking times for a semi-Markov system with failures. (Russian. English summary) **82i:62135**
Ashour, S. K. (*with* Rashwan, D. R.) Bayesian predictions for compound Weibull model. **82i:62136**
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Bain, Lee J. *See* **Engelhardt, Max; et al., 82i:62139**
Barlow, Richard E. (*with* Davis, Bernard) Total time on test plots. **82e:62160**
(*with* Wu, Alexander S.) Preposterior analysis of Bayes estimators of mean life. **82i:62137**
Basu, Asit P. *See* **Klein, John P., 82i:62141**
Bather, John On the sequential construction of an optimal age replacement policy. (French summary) **82g:62131**
Bhattacharya, D. D. Renewal function for any arbitrary period—a Bayesian way. **82d:62147**
Bhattacharyya, G. K. (*with* Johnson, Richard A.) Stress-strength models for reliability: overview and recent advances. **82h:62170**
Bilikam, J. Edward Correction to: "Generalized life distribution parameterization and estimation" [J. Inform. Optim. Sci. **1** (1980), no. 1, 57–62; MR 81k:62138]. **82m:62219**
Block, Henry W. (*with* Savits, Thomas H.) Multivariate classes of life distributions in reliability theory. **82i:62138**
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Chikte, S. D. (*with* Deshmukh, S. D.) Preventive maintenance and replacement under additive damage. **82m:62220**
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Doksum, Kjell A. Rank tests for the matched pair problem with life distributions. **82k:62182**
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Dyer, Danny (*with* Keating, Jerome P.) On the relative behavior of estimators of the characteristic life in the exponential failure model. **82f:62177**
Dykstra, R. L. (*with* Laud, Purushottam W.) A Bayesian nonparametric approach to reliability. **82d:62148**
El-Neweihi, Emad (*with* Proschan, Frank) Multistate reliability models: a survey. **82f:62178**
Stochastic ordering and a class of multivariate new better than used distributions. **82m:62221**
Engelhardt, Max (*with* Bain, Lee J.; Wright, F. T.) Inferences on the parameters of the Birnbaum-Saunders fatigue life distribution based on maximum likelihood estimation. **82i:62139**
Evans, I. G. (*with* Nigm, A. M.) Bayesian prediction for two-parameter Weibull lifetime models. **82d:62149**
Finkel'štein, E. Ja. Parametric methods of selection of elements of increased reliability. (Russian) **82b:62125**
Fleming, Thomas R. (*with* Harrington, David P.) A class of hypothesis tests for one- and two-sample censored survival data. **82f:62179**
Földes, Antónia (*with* Rejtő, Lidia) Asymptotic properties of the nonparametric survival curve estimators under variable censoring. **82k:62183**
(*with* Rejtő, Lidia) Strong uniform consistency for nonparametric survival curve estimators from randomly censored data. **82j:62071**
Gaver, Donald P. (*with* Acar, M.) Analytical hazard representations for use in reliability, mortality, and simulation studies. **82d:62150**
Gordienko, E. I. Statistical solution of the inverse optimal redundancy problem. **82e:62161**
Gottlieb, Gary Failure distributions of shock models. **82j:62072**
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Harrington, David P. *See* **Fleming, Thomas R., 82f:62179**
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Hill, Catherine Asymptotic relative efficiency of survival tests with covariates. **82m:62222**
Hjorth, Urban A reliability distribution with increasing, decreasing, constant and bathtub-shaped failure rates. **82b:62126**
Hurt, Jan Estimates of reliability for the normal distribution. (Czech summary) **82b:62127**
Hutchinson, T. P. Compound gamma bivariate distributions. **82m:62223**
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Johnson, Norman Lloyd (*with* Kotz, Samuel) Dependent relevations: time-to-failure under dependence. **82j:62073**
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Jones, Lowell *See* **Samaniego, Francisco J., 82e:62164**
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Kale, Balvant Keshav *See* **Sinha, Snehesh Kumar, 82d:62156**
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Kim, Geung Ho Bounds for strength-stress interference via mathematical programming. **82j:62074**
Kingston, Joseph V. (*with* Patel, Jagdish K.) Interval estimation of the largest reliability of k Weibull populations. **82k:62185**
Kitchin, John (*with* Proschan, Frank) Generalization of Block-Savits' convolution result. **82d:62151**
Klein, John P. (*with* Basu, Asit P.) Weibull accelerated life tests when there are competing causes of failure. **82i:62141**
Kochar, Subhash C. A new distribution-free test for the equality of two failure rates. **82k:62186**
Kopociński, B. Some estimations of system reliability with positively dependent survival times of critical paths. (Polish summary) **82i:62142**
Kotz, Samuel *See* **Johnson, Norman Lloyd, 82j:62073**
Koul, Hira L. (*with* Susarla, V.) Testing for new better than used in expectation with incomplete data. **82d:62152**
Krol', I. A. Interval estimation of reliability in the case of parametric and sudden failures. **82b:62128**
Kukuk, Cris *See* **Wegman, Edward J.; et al., 82i:62145**
Kuznecov, M. Ju. Approximation of the failure probability of a redundant system by the probability of monotone failure. (Russian. English summary) **82h:62171**
Laird, Nan (*with* Olivier, Donald) Covariance analysis of censored survival data using log-linear analysis techniques. **82i:62143**
Laud, Purushottam W. *See* **Dykstra, R. L., 82d:62148**
Lawless, J. F. (*with* Singhal, Kishore) Analysis of data from life-test experiments under an exponential model. **82m:62225**
Lee, Larry (*with* Pirie, Walter R.) A graphical method for comparing trends in series of events. **82f:62180**
Lingappaiah, G. S. Prediction and testing in a generalised life test. **82m:62226**
MacGillivray, H. L. A note on the normalized moments of distributions with nonmonotonic hazard rate. **82m:62227**
Marshall, Albert W. (*with* Shaked, Moshe) Multivariate shock models for distributions with increasing hazard rate average. **82d:62153**
McNolty, Frank (*with* Doyle, James; Hansen, Eldon) Properties of the mixed exponential failure process. **82c:62135**
Mehta, Cyrus R. Sequential comparison of two exponential distributions with censored survival data. **82m:62228**
Miyamura, Tetsuo Statistical analysis of reliability data in randomly censored life testing. (Japanese summary) **82h:62129**
Moeschberger, M. L. *See* **David, Herbert Aron, 82c:62134**
Murthy, Vrudhula K. (*with* Haywood, L. Julian) New method for estimating survival curves based upon subpopulations. **82b:62130**
Mykytyn, Stephen W. (*with* Santner, Thomas J.) Maximum likelihood estimation of the survival function based on censored data under hazard rate assumptions. **82k:62187**
Nair, V. N. Plots and tests for goodness of fit with randomly censored data. **82h:62172**
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Obretenov, Apostol Upper bound of the absolute difference between a discrete IFR distribution and a geometric one. **82m:62229**
Ogiński, Ludwik Application of a distribution of Bessel type in the reliability theory. (Polish and Russian summaries) **82m:62230**
Ohi, Fumio (*with* Nishida, Toshio) Bivariate shock models: NBU and NBUE properties, and positively quadrant dependency. (Japanese summary) **82j:62075**
Olivier, Donald *See* **Laird, Nan, 82i:62143**
Padgett, W. J. (*with* Tsokos, Chris P.) Estimation of reliability for a class of life distributions with a stochastic parameter. **82e:62162**
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Estimating the median survival time. **82m:62231**
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Ross, Sheldon M. (*with* Shahshahani, Mehrdad; Weiss, Gideon) On the duration of the problem of the points. **82a:62146**
Šagdar, L. (*with* Cèrènbat, O.; Togmid, S.) An optimal quality control plan based on a multivariate quantitative attribute. (Russian) **82e:62163**
Samaniego, Francisco J. (*with* Jones, Lowell) Maximum likelihood estimation for a class of multinomial distributions arising in reliability. **82e:62164**
Santner, Thomas J. *See* **Mykytyn, Stephen W., 82k:62187**
Savits, Thomas H. *See* **Block, Henry W., 82i:62138**
Saxena, K. M. Lal Distribution-free tolerance bounds for the lifetime of an m-out-of-k system of components. **82c:62137**
Schoenfeld, David Chi-squared goodness-of-fit tests for the proportional hazards regression model. **82k:62189**
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Sinha, Snehesh Kumar (*with* Kale, Balvant Keshav) ★Life testing and reliability estimation. **82d:62156**
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Soms, Andrew P. *See* **Harris, Bernard, 82k:62184**
Subramanian, Ramachandran (*with* Natarajan, R.) Two-unit system with imperfect switch. **82k:62190**
Susarla, V. *See* **Koul, Hira L., 82d:62152**
Takamatsu, Shunro Reliability analysis for a 2-out-of-m system of dissimilar units. **82c:62138**
Teskin, O. I. Precise confidence limits for the reliability of redundant systems in the case of failure-free tests of their elements. **82m:62232**
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Tihov, M. S. Comparison of plans of control on the basis of a posteriori characteristics. **82a:62147**
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Tošić, Ratko An optimal search procedure. **82b:62131**
Tsokos, Chris P. (*with* Rao, A. N. V.) Sensitivity analysis of the Bayesian estimators of the intensity parameter and reliability function of the Poisson failure model. (Italian and French summaries) **82b:62132**
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★Noi modele statistice în studiul durabilității produselor. (Romanian) [New statistical models in durability analysis] **82k:62191**
Voïna, O. A. *See* **Anisimov, V. V.; et al., 82i:62135**
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Weier, D. R. Bayes estimation for a bivariate survival model based on exponential distributions. **82h:62173**
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Weissman, Ishay Confidence intervals for the threshold parameter. **82f:62183**
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Yaqub, Mohd. (*with* Khan, A. H.) Geometric failure law in life testing. **82d:62157**
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Beichelt, Frank The availability of replaceable single-unit systems in case of cost restrictions and partial information on lifetime distribution. (German and Russian summaries) **(82h:90055)**
Berg, Menachem A stochastic model for the reliability of a power unit with deliberate shutdowns. **(82d:60171)**
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Chandra, Mahesh (*with* Singpurwalla, Nozer D.) Relationships between some notions which are common to reliability theory and economics. **(82m:90059)**
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Derman, Cyrus (*with* Smith, Donald R.) An alternative proof of the IFRA property of some shock models. **(82c:60157)**
Dhillon, B. S. (*with* Singh, Chanan) ★Engineering reliability. **(82f:90043)**
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Gail, Mitchell H. (*with* Lubin, Jay H.; Rubinstein, Lawrence V.) Likelihood calculations for matched case-control studies and survival studies with tied death times. **(82k:62194)**
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Grandori Guagenti, E. (*with* Gianni Molina, C.) Study and applications of a nonstationary Poisson process. (Italian. English summary) **(82a:60131)**
Gupta, R. P. (*with* Shah, Shantilal M.) On the Bayesian estimation with changing failure rate. **(82m:62237)**
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Lancaster, Leslie Modeling reliability conditioned on usage in an operational test environment. **(82a:90062)**
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Lingappaiah, G. S. Bayesian approach to the prediction problem in complete and censored samples from the gamma and exponential populations. **(82a:62054)**
Lubin, Jay H. *See* **Gail, Mitchell H.; et al., (82k:62194)**
Lynch, James Dennis *See* **Langberg, Naftali A.; et al., (82b:60114)**
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Mehrotra, Kishan G. A note on the mixture of new worse than used in expectation. **(82h:62028)**
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Singh, Chanan *See* **Dhillon, B. S., (82f:90043)**
Singpurwalla, Nozer D. *See* **Chandra, Mahesh, (82m:90059)**
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Umrihin, Ju. D. Reliability of a periodically controlled system. **(82c:60153)**
Weier, D. R. (*with* Basu, Asit P.) Testing for independence in multivariate exponential distributions. **(82g:62040)**
Williams, Raymond E. *See* **Pathak, Pramod K.; et al., (82h:62070)**
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62N10 Quality control [See also 90Bxx.]

Behl, M. Die messende Prüfung bei Abweichung von der Normalverteilungsannahme. (English summary) [Measuring test in the deviation from the assumption of normal distribution] **82m:62233**
Beljaev, Ju. K. (*with* Mal'kov, A. N.) On sampling inspection by attributes with varying probabilities of classification errors. (Russian) **82m:62234**
Bhattacharya, P. K. (*with* Frierson, Dargan, Jr.) A nonparametric control chart for detecting small disorders. **82h:62174**
Combs, Charles A. *See* **Stephens, Larry Joe, 82g:62133**
Fang, Kai Tai (*with* Wu, Chuan Y.) The extreme value problem for some probability functions. (Chinese) **82h:62135**
Formanov, Š. K. *See* **Siraždinov, S. H.; et al., 82e:62165**
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Johnson, Norman Lloyd (*with* Kotz, Samuel; Sorkin, H. L.) "Faulty inspection" distributions. **82k:62192**
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Liu, Zhi Min A way of applying the Weibull distribution in the investigation of the lifetime of a product. (Chinese) **82c:62140**
Mal'kov, A. N. *See* **Beljaev, Ju. K., 82m:62234**
Mamatkulov, O. Bayesian estimates in defective-free statistical quality control plans. (Russian) **82h:62175**
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Munford, A. G. A control chart based on cumulative scores. **82i:62146**
A first passage problem in a random walk with a quality control application. **82h:62176**
Nguyễn Văn Hò Application of the normal distribution to quality control. (Czech summary) **82c:62141**
Siraždinov, S. H. (*with* Formanov, Š. K.; Mamatkulov, O.) Optimal statistical quality control plans based on a multivariate quantitative attribute. (Russian) **82e:62165**
Sorkin, H. L. *See* **Johnson, Norman Lloyd; et al., 82k:62192**
Stephens, Larry Joe (*with* Combs, Charles A.) Group testing to eliminate defectives when prior probabilities for the proportion defective are known. **82g:62133**
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Kittler, J. Measurement errors in pattern recognition. **(82b:68078)**
Tihov, M. S. Comparison of plans of control on the basis of a posteriori characteristics. **(82a:62147)**

62N99 None of the above, but in this section

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Kudrjavcev, B. M. ★Статистические методы исследования в практике. (Russian) [Statistical research methods in practice] **(82b:62002)**
Solo, Victor Some aspects of engineering time series analysis. (*See* **82g:62008**)

62Pxx Applications [See also 82–XX, 90–XX, 92–XX.]

62P05 Actuarial mathematics

Ammeter, Hans A. Potenzmittel-Credibility. (English and French summaries) **82b:62136**
Andreadakis, M. (*with* Waters, H. R.) The effect of reinsurance on the degree of risk associated with an insurer's portfolio. **82i:62147**
Ballegeer, Y. *See* **De Vylder, Fl., 82b:62137**
Beekman, John A. (*with* Fuelling, Clinton P.) Risk convolution calculations. **82i:62148**
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Borch, Karl Problems in the economic theory of insurance. **82a:62150**
Borgan, Ørnulf (*with* Hoem, Jan M.; Norberg, Ragnar) A nonasymptotic criterion for the evaluation of automobile bonus systems. **82i:62149**
De Vylder, Fl. (*with* Ballegeer, Y.) A numerical illustration of optimal semilinear credibility. **82b:62137**
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Doherty, N. A. Stochastic ordering of risk/insurance exchanges. **82f:62184**
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Fuelling, Clinton P. *See* **Beekman, John A., 82i:62148**
Gerber, Hans U. Credibility for Esscher premiums. (French and German summaries) **82e:62166**
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Gupta, Ramesh C. On the proportionality assumption in the competing risk analysis. **82f:62185**
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Hoem, Jan M. *See* **Borgan, Ørnulf; et al., 82i:62149**
Jewell, William S. *See* **Sundt, Bjørn, 82m:62235**
Kahane, Yehuda The theory of insurance risk premiums—a re-examination in the light of recent developments in capital market theory. **82a:62152**
Mertens, F. *See* **Goovaerts, M. J.; et al., 82c:62143**
Miller, Robert B. Actuarial applications of Bayesian statistics. (*See* **82d:62170**)

Moore, Marva Houston Derivatives of the annuity function assuming Makeham-Gompertz mortality; and the *n*-ages method. **82h:62177**
Norberg, Ragnar Empirical Bayes credibility. **82d:62159**
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Nour, El-Sayed E. Multiple decrement analysis with dependent risks. **82i:62150**
Osawa, Hideo The analysis of the ruin problem using the queueing theory. **82d:62160**
Seal, Hilary L. Ruin probabilities for mixed Poisson claim numbers without Laplace transforms. **82h:62140**
Sundt, Bjørn (*with* Jewell, William S.) Further results on recursive evaluation of compound distributions. **82m:62235**
Recursive credibility estimation. **82h:62193**
Tapiero, Charles S. (*with* Zuckerman, Dror) Optimum excess-loss reinsurance: a dynamic framework. **82i:62151**
Waters, H. R. *See* **Andreadakis, M., 82i:62147**
Zuckerman, Dror *See* **Tapiero, Charles S., 82i:62151**

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(Bernstein, Felix) *See* **Frewer, M., (82j:01065)**
David, Herbert Aron (*with* Moeschberger, M. L.) ★The theory of competing risks. **(82c:62134)**
Frewer, M. Felix Bernstein. (German) **(82j:01065)**
Lemaire, Jean A nonsymmetrical value for games without transferable utilities: application to reinsurance. (French summary) **(82a:90184)**
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Pinhas, Max Processus de diffusion et espérance arrêtée: application au calcul actuariel. **(82d:60162)**
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62P10 Biometrics

Avery, P. J. (*with* Hill, William G.) Variance in quantitative traits due to linked dominant genes and variance in heterozygosity in small populations. **82h:62141**
Besag, Julian Some methods of statistical analysis for spatial data. (French summary) **82f:62186**
Darby, S. C. A Bayesian approach to parallel line bioassay. **82h:62178**
Ejigou, Ayenew (*with* McHugh, Richard) Relative risk estimation under multiple matching. **82g:62134**
Ewens, W. J. Aspects of population genetics theory. **82m:62236**
Felton, R. *See* **Seber, G. A. F., 82g:62135**
Finney, D. J. The statistical structure of biological assays. **82e:62167**
Gail, Mitchell H. (*with* Lubin, Jay H.; Rubinstein, Lawrence V.) Likelihood calculations for matched case-control studies and survival studies with tied death times. **82k:62194**
Gardner, M. J. (*with* Munford, A. G.) The combined effect of two factors on disease in a case-control study. **82d:62161**
Gelpke, G. J. *See* **Titterington, D. M.; et al., 82h:62182**
Gupta, R. P. (*with* Shah, Shantilal M.) On the Bayesian estimation with changing failure rate. **82m:62237**
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Hayashi, Chikio Some statistical methods of estimating the size of an animal population. **82a:62153**
Hill, William G. *See* **Avery, P. J., 82h:62141**
Hosmer, David W. *See* **Lemeshow, Stanley; et al., 82m:62239**
Iesdinsky, H. Statistical problems in clinical trials. **82k:62195**
Kariya, Taichi (*with* Nakamura, Tadashi) The maximum likelihood estimates based on the incomplete quantal response data. **82h:62142**
Khatri, C. G. *See* **Patel, H. I., 82k:62197**
Kirkwood, G. P. *See* **Sandland, R. L., 82h:62181**
Lauder, I. J. Latent variable models for statistical diagnosis. **82h:62179**
Lefèvre, Claude Optimal immunization and isolation policies for the Greenwood chain-binomial epidemic model. (French summary) **82m:62238**
Lemeshow, Stanley (*with* Hosmer, David W.; Stewart, James P.) A comparison of sample size determination methods in the two group trial where the underlying disease is rare. **82m:62239**
Lo, Hing Po *See* **Wani, Jagannath K., 82h:62184**
Lubin, Jay H. *See* **Gail, Mitchell H.; et al., 82k:62194**
Mak, T. K. (*with* Ng, K. W.) Analysis of familial data: linear-model approach. **82h:62180**
McHugh, Richard *See* **Ejigou, Ayenew, 82g:62134**
Morton, R. Optimal estimating equations with applications to insect development times. **82k:62196**
Munford, A. G. *See* **Gardner, M. J., 82d:62161**
Murray, G. D. *See* **Titterington, D. M.; et al., 82h:62182**
Murray, L. S. *See* **Titterington, D. M.; et al., 82h:62182**
Nakamura, Tadashi *See* **Kariya, Taichi, 82h:62142**
Ng, K. W. *See* **Mak, T. K., 82h:62180**
Pasternack, Bernard (*with* Shohoji, Takao) Fitting a Gompertz curve to adolescent standing height growth data. **82h:62143**
Patel, H. I. (*with* Khatri, C. G.) Analysis of incomplete data in experiments with repeated measurements in clinical trials using a stochastic model. **82k:62197**
Prajneshu Gompertz model with heredity in random environment. **82k:62198**
Rubinstein, Lawrence V. *See* **Gail, Mitchell H.; et al., 82k:62194**
Sandland, R. L. (*with* Kirkwood, G. P.) Estimation of survival in marked populations with possibly dependent sighting probabilities. **82h:62181**
Satyamurthi, K. R. Density, derived from measured distances, for studying the spatial patterns. **82e:62168**
Schumacher, M. Point estimation in quantal response models. (German summary) **82a:62154**
Seber, G. A. F. (*with* Felton, R.) Tag loss and the Petersen mark-recapture experiment. **82g:62135**
Shah, Shantilal M. *See* **Gupta, R. P., 82m:62237**
Shohoji, Takao *See* **Pasternack, Bernard, 82h:62143**
Skene, A. M. *See* **Titterington, D. M.; et al., 82h:62182**
Spiegelhalter, D. J. *See* **Titterington, D. M.; et al., 82h:62182**
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Tsiatis, Anastasios A. The asymptotic joint distribution of the efficient scores test for the proportional hazards model calculated over time. **82h:62183**
Wani, Jagannath K. (*with* Lo, Hing Po) Characterizing constants for biological populations following certain power series abundance distributions. **82h:62184**
Wilson, Susan R. An alternative approach to modelling the assortative mating process. **82k:62199**
Yanagawa, Takashi A note on the efficiency of the pairwise individual matching design in a case-control study in epidemiology. **82m:62240**
Validity and efficiency of matching: categorical matching vs. unmatched design in a case-control study in epidemiology. **82f:62187**
Bioscience ★Statistical analysis of the data in bioscience and mathematical models. (Japanese) **82e:62169**
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Aalen, Odd O. A model for nonparametric regression analysis of counting processes. **(82a:62135)**
(*with* Borgan, Ørnulf; Keiding, Niels; Thormann, Jens) Interaction between life history events. Nonparametric analysis for prospective and retrospective data in the presence of censoring. **(82f:62070)**
(Andrews, E. G. David) *See* **Fox, A. J., (82e:92036)**
Anstey, Robert L. (*with* Pachut, Joseph F.) Fourier packing ordinate: a univariate size-independent measurement of the polygonal packing variation in Paleozoic bryozoans. **(82a:92001)**
Avery, P. J. *See* **Weir, B. S.; et al., (82f:92028)**
Ayala, Francisco J. *See* **Mueller, Laurence D., (82i:92028)**
Bailey, Norman T. J. ★Statistical methods in biology. **(82g:92001)**
Begg, Colin B. (*with* Mehta, Cyrus R.) Sequential analysis of comparative clinical trials. **(82h:62131)**
Bennett, B. M. Use of the tetrachoric correlation model in assessing clinical tests. **(82b:62065)**
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Castledine, B. J. A Bayesian analysis of multiple-recapture sampling for a closed population. **(82g:62056)**
Emigh, Ted H. The dynamics of finite haploid populations with overlapping generations. I. Moments, fixation probabilities and stationary distributions. **(82c:92018)**
Fox, A. J. Mortality statistics and the assessment of risk. **(82e:92036)**
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Gierer, Alfred *See* **Meinhardt, Hans, (82c:92006)**
Gilula, Zvi Singular value decomposition of probability matrices: probabilistic aspects of latent dichotomous variables. **(82a:62070)**
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Hadeler, K. P. Diffusion in Fisher's population model. **(82e:92025)**
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Jindra, R. H. EEG feature extraction using Parcor coefficients. (German summary) **(82b:68076)**
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Legendre, Louis (*with* Legendre, Pierre) ★Écologie numérique. Tome 1. (French) [Numerical ecology. Vol. 1] **(82m:92071a)**
(*with* Legendre, Pierre) ★Écologie numérique. Tome 2. (French) [Numerical ecology. Vol. 2] **(82m:92071b)**
Legendre, Pierre *See* **Legendre, Louis, (82m:92071a)** *and* **(82m:92071b)**
(Margalef, Ramón) *See* **Legendre, Louis; et al., (82m:92071a)**
McGilchrist, Clyde A. *See* **Simpson, Judy M., (82m:92014)**
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Pachut, Joseph F. *See* **Anstey, Robert L., (82a:92001)**
Payne, R. W. (*with* Preece, D. A.) Identification keys and diagnostic tables: a review. **(82a:68128)**

Preece, D. A. *See* **Payne, R. W., (82a:68128)**
Schoenfeld, David Chi-squared goodness-of-fit tests for the proportional hazards regression model. **(82k:62189)**
The asymptotic properties of nonparametric tests for comparing survival distributions. **(82g:62069)**
Simpson, Judy M. (*with* McGilchrist, Clyde A.) Growth-variable distribution and mortality. **(82m:92014)**
Strackee, J. *See* **Nagelkerke, N. J. D.; et al., (82m:62184)**
Tan, W. Y. The Markov process approach to survival analysis. **(82m:60101)**
Thormann, Jens *See* **Aalen, Odd O.; et al., (82f:62070)**
Weir, B. S. (*with* Avery, P. J.; Hill, William G.) Effect of mating structure on variation in inbreeding. **(82f:92028)**
Wiggins, Alvin D. (*with* Franti, Charles E.) An inverse sampling scheme using blocks. **(82m:62023)**

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Ashby, F. Gregory (*with* Townsend, James T.) Decomposing the reaction time distribution: pure insertion and selective influence revisited. **82m:62241**
van den Brink, Wulfert P. (*with* Koele, Pieter) Item sampling, guessing and decision-making in achievement testing. **82a:62155**
Dorsett, Michael J. A review of data estimates and subjective probability. **82d:62162**
Goldstein, Harvey ★The design and analysis of longitudinal studies. **82j:62076**
Dimensionality, bias, independence and measurement scale problems in latent trait test score models. **82a:62156**
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(Tanner, J. M.) *See* **Goldstein, Harvey, 82j:62076**
Townsend, James T. *See* **Ashby, F. Gregory, 82m:62241**
Yellott, John I., Jr. Generalized Thurstone models for ranking: equivalence and reversibility. **82c:62144**

secondary classifications:

(Abt, Clark C.) *See* **Goodman, Leo A., (82a:62079)**
Baird, John C. *See* **Luce, R. Duncan; et al., (82a:92043)**
Colonius, Hans Representation and uniqueness of the Bradley-Terry-Luce model for pair comparisons. **(82h:62005)**
Coughlin, Peter J. Optimal voting under uncertainty in mathematical models of electoral competition. **(82f:90014)**
Critchley, Frank Optimal norm characterisations of multidimensional scaling methods and some related data analysis problems. (French summary) (*See* **82f:62004**)
Farkas, M. (*with* Lokos, Agnes; Mile, Isabella) A dynamic model of simultaneous memorization. (Spanish summary) **(82j:92067)**
Goodman, Leo A. ★Analyzing qualitative/categorical data. **(82a:62079)**
Green, David M. *See* **Luce, R. Duncan; et al., (82a:92043)**
Hanen, A. Quelques modèles probabilistes sous-jacents à la théorie des tests psychologiques. (English summary) **(82m:92084)**
Isogai, Takafumi *See* **Okamoto, Masashi, (82h:62069)**
Lokos, Agnes *See* **Farkas, M.; et al., (82j:92067)**
Luce, R. Duncan (*with* Baird, John C.; Green, David M.; Smith, Albert F.) Two classes of models for magnitude estimation. **(82a:92043)**
(Magidson, Jay) *See* **Goodman, Leo A., (82a:62079)**
Mile, Isabella *See* **Farkas, M.; et al., (82j:92067)**
Okamoto, Masashi (*with* Isogai, Takafumi) Optimality of multidimensional representation in Hayashi's fourth method of quantification. **(82h:62069)**
Schwarz, Gideon (*with* Tversky, Amos) On the reciprocity of proximity relations. **(82f:92050)**
Smith, Albert F. *See* **Luce, R. Duncan; et al., (82a:92043)**
Tversky, Amos *See* **Schwarz, Gideon, (82f:92050)**

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Akdeniz, Fikri Linear aggregation problems and comparison of two estimators of the macroparameters. (Turkish summary) **82g:62136**
Anderson, G. J. Comment on: "The structure of simultaneous equations estimators" [J. Econometrics **4** (1976), no. 1, 51–88; MR **55** #1691] by D. F. Hendry. **82g:62137a**
Erratum: "Comment on: 'The structure of simultaneous equations estimators' by Hendry". **82g:62137b**
Arndt, Gisela ★Planung und statistische Auswertung von Computersimulationen interdependenter Modelle mit verzögerten endogenen Variablen. (German) [Planning and statistical evaluation of computer simulations of interdependent models with delayed endogenous variables] **82j:62077**
Baillie, Richard T. Prediction from the dynamic simultaneous equation model with vector autoregressive errors. **82h:62185**
Barnett, William A. Economic monetary aggregates. An application of index number and aggregation theory. (*See* **82c:90003a**)
Biørn, Erik Estimating economic relations from incomplete cross-section/time-series data. **82h:62186**
Blanco de Dieguez, M. (*with* Cortigiani, J. L.) Linear distribution of economic series. (Spanish) **82g:62138**
Boardman, Anthony E. (*with* Hui, Baldwin S.; Wold, Herman) The partial least squares-fix point method of estimating interdependent systems with latent variables. **82d:62164**
Bock, M. E. *See* **Yancey, Thomas A.; et al., 82k:62213**
Breusch, T. S. (*with* Pagan, Adrian) The Lagrange multiplier test and its applications to model specification in econometrics. **82g:62139**
Brown, Bryan W. Sample size requirements in full information maximum likelihood estimation. **82k:62200**
Bruggeman, Werner (*with* O'Neill, Daniel E.) Comparison of classical econometric methods and multivariate time series analysis in assessing the relationship between consumption and income. **82d:62165**
Calzolari, Giorgio A note on the variance of ex-post forecasts in econometric models. **82k:62201**
Catinat, Michel (*with* Verger, Daniel) Estimation d'un modèle de demande de travail à court terme. (English and Spanish summaries) (*See* **82e:90019**)
Chow, Gregory C. Econometric policy evaluation and optimization under rational expectations. **82e:62170**
(Clements, Kenneth W.) *See* **Barnett, William A., (*See* 82c:90003a)**
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Cosslett, Stephen R. Maximum likelihood estimator for choice-based samples. **82h:62187**
Dagenais, Marcel G. Specification and estimation of a dynamic disequilibrium model. **82f:62188**
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Davidson, Russell (*with* MacKinnon, James G.) Several tests for model specification in the presence of alternative hypotheses. **82f:62189**
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Forsyth, F. G. (*with* Fowler, R. F.) The theory and practice of chain price index numbers. **82h:62190**
Fowler, R. F. *See* **Forsyth, F. G., 82h:62190**
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Friedmann, Ralph The reliability of policy recommendations and forecasts from linear econometric models. **82k:62203**
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Gaudry, Marc J. I. The inverse power transformation logit and dogit mode choice models. **82f:62190**
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Giles, David E. A. Testing for parameter stability in structural econometric relationships. **82k:62204**
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Gorelik, N. A. (*with* Frenkel, A. A.) Box-Jenkins method. Some aspects of its application. Development prospects. **82m:62243**
Granger, C. W. J. On the synthesis of time series and econometric models. **82i:62153**
Testing for causality: a personal viewpoint. **82c:62145**
Greene, William H. On the asymptotic bias of the ordinary least squares estimator of the Tobit model. **82f:62191**
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Grossman, Sanford J. Rational expectations and the econometric modeling of markets subject to uncertainty: a Bayesian approach. (*See* **82d:62170**)
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Hansen, Lars Peter (*with* Sargent, Thomas J.) Formulating and estimating dynamic linear rational expectations models. **82c:62146**
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Joosten, Geert Some remarks on the undersized sample problem in econometrics. **82e:62172**
Judge, George G. (*with* Griffiths, William E.; Hill, R. Carter; Lee, Tsoung Chao) ★The theory and practice of econometrics. **82d:62167**
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Kloek, Teun OLS estimation in a model where a microvariable is explained by aggregates and contemporaneous disturbances are equicorrelated. **82k:62205**
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Meese, Richard Dynamic factor demand schedules for labor and capital under rational expectations. (*See* **82c:90003a**)
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(Nguyen, Phuong) *See* **Barnett, William A., (***See* **82c:90003a)**
Nickell, Stephen Biases in dynamic models with fixed effects. **82k:62207**
(Offenbacher, Edward K.) *See* **Barnett, William A., (***See* **82c:90003a)**
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Pagan, Adrian *See* **Breusch, T. S., 82g:62139**
Palm, Franz (*with* Zellner, Arnold) Rejoinder: "Large sample estimation and testing procedures for dynamic equation systems" [J. Econometrics **12** (1980), no. 3, 251–283; MR 81g:62156]. **82m:62245b**
See also **McDonald, John Malcolm; et al., 82m:62245a**
Pescheux, Jean-Michel *See* **Mairesse, Jacques, (***See* **82c:90019**)
Phillips, G. D. A. *See* **Harvey, A. C., 82f:62192**
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(Pirogov, G. G.) *See* **Zellner, Arnold, 82c:62150**
Revankar, Nagesh S. Error component models with serially correlated time effects. **82k:62208**
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Saxena, Ashok K. Principal components and its use in regression analysis: the problem revisited. (Italian and French summaries) **82i:62156**
Schaffrin, Burkhard Best invariant covariance component estimators and application to the generalized multivariate adjustment of heterogeneous deformation observations. **82k:62193**
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Srivastava, Virender Kumar (*with* Dwivedi, T. D.) Estimation of seemingly unrelated regression equations: a brief survey. **82h:62145**
(*with* Agnihotri, B. S.; Dwivedi, T. D.) Dominance of double k-class estimators in simultaneous equations. **82j:62079**
(Stokes, Houston H.) *See* **Maravall, Agustin, (***See* **82c:90003a)**
Swamy, P. A. V. B. (*with* Mehta, J. S.) On the existence of moments of partially restricted reduced form coefficients. **82g:62141**
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Theil, Henri The increased use of statistical concepts in economic analysis. **82d:62169**
Tinsley, P. A. (*with* Spindt, P. A.; Friar, Monica) Indicator and filter attributes of monetary aggregates. A nit-picking case for disaggregation. (*See* **82c:90003a**)
(*with* Garrett, Bonnie; Friar, Monica) An exposé of disguised deposits. (*See* **82c:90003b**)
Tintner, G. *See* **Deistler, Manfred, 82h:62188**
Toutenburg, H. Nonlinear constraints for coefficients in linear models. **82k:62211**
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Wall, Kent D. Specification and estimation of econometric models with generalized expectations. **82e:62173**
(Wallis, Kenneth F.) *See* **Granger, C. W. J., 82i:62153**
Winston, Clifford Identification of dependent probit models: a simplified approach. **82k:62212**
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Wolters, Jürgen ★Stochastic dynamic properties of linear econometric models. **82m:62246**
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Zaman, Asad Estimators without moments: the case of the reciprocal of a normal mean. **82i:62157**
Zellner, Arnold ★Байесовские методы в эконометрии. (Russian) [An introduction to Bayesian inference in econometrics] **82c:62150**
See also **Palm, Franz, 82m:62245b; Bayesian analysis in econometrics and statistics, 82d:62170** *and* **McDonald, John Malcolm; et al., 82m:62245a**
Bayesian analysis in econometrics and statistics ★Bayesian analysis in econometrics and statistics. **82d:62170**

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Model selection ★Model selection. **82f:62195**
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(Barnett, William A.) *See* **Econometric modeling and policy design at the Federal Reserve, (82c:90003a)** *and* **(82c:90003b)**
Bronsard, Camille (*with* Salvas-Bronsard, Lise) Sur les différentes formes structurelles engendrées par la théorie de la demande et leur utilisation en économétrie: systèmes direct, réciproque, mixte et système avec rationnement quantitatif. (English and Spanish summaries) **(82d:90042)**
Brown, Stewart *See* **Scott, Elton, (82f:90017)**
Bunn, Derek W. Recursive estimation of the observation and process noise covariances in online Kalman filtering. **(82a:90038)**
Burdelski, Thomas ★Univariable Zeitreihenanalyse und kurzfristige Prognose. (German) [One-variable time series analysis and short term forecasting] **(82i:62001)**
(Chow, Gregory C.) *See* **Norman, Alfred L., (***See* **82c:90003b)**
Cohen-Skalli, Bernard (*with* Laskar, Daniel) Fonctions d'emploi à court terme et cycles de productivité: un essai de synthèse. (English and Spanish summaries) (*See* **82e:90019**)
Conway, Delores (*with* Theil, Henri) The maximum entropy moment matrix with missing values. **(82f:62085)**
Dhrymes, Phoebus J. ★Distributed lags. **(82g:62002)**
Dyer, Danny Structural probability bounds for the strong Pareto law. (French summary) **(82k:62066)**
Fayolle, Jacky Retour sur le modèle de production "à deux investissements": investissements de capacité et de remplacement. (English and Spanish summaries) (*See* **82e:90019**)
Fox, Karl August ★Intermediate economic statistics. Vol. I. **(82d:90043a)**
(*with* Kaul, Tej K.) ★Intermediate economic statistics. Vol. II. **(82d:90043b)**
Gabay, Daniel (*with* Nepomiastchy, Pierre; Rachdi, M'hamed; Ravelli, Alain) Numerical methods for simulation and optimal control of large-scale macroeconomic models. **(82k:90040)**
Gersovitz, Mark Classification probabilities for the disequilibrium model. **(82a:62083)**
Gomulka, J. Decomposition algorithms for smooth unconstrained optimisation problems. **(82d:49028)**
de Gooijer, Jan G. Exact moments of the sample autocorrelations from series generated by general ARIMA processes of order (p,d,q), $d=0$ or 1. **(82e:62143)**
Greenberg, Edward Finite sample moments of a preliminary test estimator in the case of possible heteroscedasticity. **(82h:62102)**
Härke, Eckhard ★Fehlerkomponenten-Modelle und optimale Vorhersage aus kombinierten Zeitreihen- und Querschnittsdaten. (German) [Error-component models and optimal estimation for combined time series and cross section data] **(82b:62114)**
Hatanaka, Michio A note on the application of the Kalman filter to regression models with some parameters varying over time and others unvarying. **(82k:62168)**
Hénin, Pierre-Yves L'offre d'emploi industriel en longue période avec une technologie "putty-clay". (English and Spanish summaries) (*See* **82e:90019**)
Henn, Rudolf (*with* Kischka, Peter) ★Statistik: Theorie und Anwendungen in den Wirtschaftswissenschaften. Teil 1. (German) [Statistics: theory and applications in economics. Part 1] **(82c:62002)**
Judge, George G. (*with* Yancey, Thomas A.) Sampling properties of an inequality restricted estimator. **(82k:62022)**
Kabe, D. G. *See* **Scobey, P., (82f:62103)**
Kaul, Tej K. *See* **Fox, Karl August, (82d:90043b)**
Kischka, Peter *See* **Henn, Rudolf, (82c:62002)**
Krasker, William S. Estimation in linear regression models with disparate data points. **(82a:62093)**
Kuhlmann, Wolfgang ★Parameterschätzung von Eingleichungsmodellen im unbeschränkten Parameterraum mittels des Levenberg-Marquardt-Verfahrens. (German) [Parameter estimation of single equation models in unconstrained parameter space using the Levenberg-Marquardt method] **(82k:62118)**
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Pagan, Adrian Some identification and estimation results for regression models with stochastically varying coefficients. **(82a:62094)**
Pal, Manoranjan Consistent moment estimators of regression coefficients in the presence of errors in variables. **(82a:62095)**
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Praetz, Peter D. Testing for a flat spectrum on efficient market price data. **(82c:62130)**
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Scobey, P. (*with* Kabe, D. G.) Some correlation optimization problems of econometrics, statistics and psychology. **(82f:62103)**
Scott, Elton (*with* Brown, Stewart) Biased estimators and unstable betas. **(82f:90017)**
(Sengupta, Jati K.) *See* **Fox, Karl August, (82d:90043a)**
Talahadze, M. V. Estimates of linear regression coefficients with a finite number of parameters. (Russian) **(82f:62128)**
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★Econometric modeling and policy design at the Federal Reserve. Part II. **(82c:90003b)**

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Aldrich, J. Specification tests in econometrics and time series analysis. **(82b:62109)**
Hartmann, Wolfgang ★Geometrische Modelle zur Analyse empirischer Daten. (German) [Geometric models for the analysis of empirical data] **(82a:62002)**

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Akkerboom, J. C. (*with* Schepers, P.; v. d. Werff, J.) Thin layer chromatography, a case study. **82b:62146**
Barndorff-Nielsen, Ole (*with* Darroch, John) A stochastic model for sand sorting in a wind-tunnel. **82f:62196**
Besag, Julian On resistant techniques and statistical analysis. **82h:62194**
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Johnson, Bruce R. The search for submarine pingos in the Beaufort Sea: an unusual application of the binomial distribution. (French summary) **82m:62250**
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Martin, R. J. A note on the adequacy of fit of a spatial model to some agricultural uniformity data. **82k:62214**
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(Wong, Wing Hung) *See* **Tobler, Waldo R., 82b:62147**

secondary classifications:

Anderson, T. W. A new development in multivariate statistical analysis. **(82g:62079)**
Bach, Charles L. *See* **Hanson, Morgan A.; et al., (82e:00013)**
Barankin, Edward W. On the structure of procones. **(82j:92061)**
Barker, Lawrence E. *See* **Hanson, Morgan A.; et al., (82e:00013)**
Berg, Sven On snowball sampling, random mappings and related problems. **(82b:60085)**
Cooley, Edward A. *See* **Hanson, Morgan A.; et al., (82e:00013)**
Daley, D. J. Bias in estimating the Malthusian parameter for Leslie matrices. **(82i:92021)**
Edwards, Robert *See* **Mardia, K. V.; et al., (82i:52014)**
Grauert, Hans (*with* Leykum, S.) Die pseudoeuklidische Geometrie als statistisches Gleichgewicht. **(82k:51015)**
Hanson, Morgan A. (*with* Barker, Lawrence E.; Bach, Charles L.; Cooley, Edward A.; Hunter, Charles H.) A bibliography of weather modification experiments. **(82e:00013)**
Hipel, Keith William (*with* McLeod, Angus Ian) Perspectives in stochastic hydrology. **(82g:86002)**
Hunter, Charles H. *See* **Hanson, Morgan A.; et al., (82e:00013)**
Leykum, S. *See* **Grauert, Hans, (82k:51015)**
Likeš, J. Determination of number and size of spherical particles from extraction replicas. **(82m:62063)**
Mardia, K. V. (*with* Edwards, Robert; Puri, Madan L.) Analysis of central place theory. (French summary) **(82i:52014)**
McLeod, Angus Ian *See* **Hipel, Keith William, (82g:86002)**
Puri, Madan L. *See* **Mardia, K. V.; et al., (82i:52014)**
Railton, Peter Probability, explanation, and information. **(82m:03028)**
Ranalli, G. A stochastic model for strike-slip faulting. **(82b:86006)**
Sobczyk, Kazimierz Stochastic media. Models and analysis. **(82g:76040)**
(Wrigley, Neil) *See* **Statistical applications in the spatial sciences, (82f:90003)**

Bibliography:
Weather modification experiments *See* **Hanson, Morgan A.; et al., (82e:00013)**
Spatial sciences ★Statistical applications in the spatial sciences. **(82f:90003)**
Statistical applications in the spatial sciences ★Statistical applications in the spatial sciences. **(82f:90003)**

62Q05 Statistical tables

(Davenport, J. M.) *See* **Neff, Norman D.; et al., 82a:62157**
(Kennedy, W. J.) *See* **Neff, Norman D.; et al., 82a:62157**
Naus, Joseph I. *See* **Neff, Norman D., 82a:62157**
Neff, Norman D. (*with* Naus, Joseph I.) ★Selected tables in mathematical statistics. Vol. VI. **82a:62157**
(Odeh, Robert E.) *See* **Neff, Norman D.; et al., 82a:62157**
Selected tables in mathematical statistics *See* **Neff, Norman D.; et al., 82a:62157**
Tables:
Mathematical statistics *See* **Neff, Norman D.; et al., 82a:62157**

secondary classifications:

Krishnaiah, P. R. Computations of some multivariate distributions. (*See* **82f:62102**)

65–XX NUMERICAL ANALYSIS

65–01 Elementary exposition, textbooks

(Alt, René) *See* **Vignes, Jean, 82g:65002**
Bahvalov, N. S. ★Méthodes numériques. (French) [Numerical methods] **82f:65001**
Forsythe, George E. (*with* Malcolm, Michael A.; Moler, Cleve B.) ★Машинные методы математических вычислений. (Russian) [Computer methods for mathematical computations] **82a:65001**
Griffiths, D. F. *See* **Mitchell, Andrew Ronald, 82a:65002**
(Ikramov, H. D.) *See* **Forsythe, George E.; et al., 82a:65001**
Malcolm, Michael A. *See* **Forsythe, George E.; et al., 82a:65001**
Mitchell, Andrew Ronald (*with* Griffiths, D. F.) ★The finite difference method in partial differential equations. **82a:65002**
Moler, Cleve B. *See* **Forsythe, George E.; et al., 82a:65001**
Na, Tsung Yen ★Computational methods in engineering boundary value problems. **82g:65001**
(Petrova, Irina) *See* **Bahvalov, N. S., 82f:65001**
(Pichat, Michèle) *See* **Vignes, Jean, 82g:65002**
Schmidt, Jochen W. Zur Numerik nichtlinearer Probleme—Aufgaben, Algorithmen und Programme. **82f:65002**
Vignes, Jean ★Algorithmes numériques, analyse et mise en œuvre. 2. (French) [Numerical algorithms, analysis and application. 2] **82g:65002**

secondary classifications:

Bellman, Richard Mathematical modelling of phenomena. **(82g:00010)**
Collatz, Lothar ★Differentialgleichungen. (German) [Differential equations] **(82m:34001)**
Efimov, A. V. ★Математический анализ (специальные разделы). Часть I. (Russian) [Mathematical analysis (special sections). Part I] **(82h:00001a)**
(*with* Zolotarev, Ju. G.; Terpigoreva, V. M.) ★Математический анализ (специальные разделы). Часть II. (Russian) [Mathematical analysis (special sections). Part II] **(82h:00001b)**
(Kružilina, A. P.) *See* **Samarskiĭ, A. A., (82f:01139)**
Laval, Pierre ★Théorie et méthodes numériques de résolution des équations aux dérivées partielles. (French) [Theory and numerical methods of solution of partial differential equations] **(82d:35001)**
Meirovitch, Leonard ★Computational methods in structural dynamics. **(82f:73001)**
O'Carroll, M. J. Finite elements: what are they and what use are they? (*See* **82c:65001**)
Powell, M. J. D. ★Approximation theory and methods. **(82f:41001)**
Samarskiĭ, A. A. To give wide publicity for the ideas and methods of numerical experiment. (Russian) **(82f:01139)**
Schwarz, H. R. Die Methode der finiten Elemente zur Lösung von elliptischen Randwertaufgaben. [The finite element method for the solution of elliptic boundary value problems] **(82k:65069)**
Terpigoreva, V. M. *See* **Efimov, A. V.; et al., (82h:00001b)**
Watson, G. Alistair ★Approximation theory and numerical methods. **(82e:41001)**
Zolotarev, Ju. G. *See* **Efimov, A. V.; et al., (82h:00001b)**

65–02 Advanced exposition (research surveys, monographs, etc.)

Arsenin, V. Ja. *See* **Tihonov, A. N., 82e:65002**
Daniel, James W. A road map of methods for approximating solutions of two-point boundary-value problems. (*See* **82b:65074**)
Lavrent'ev, M. M. (*with* Romanov, V. G.; Šišatskiĭ, S. P.) ★Некорректные задачи математической физики и анализа. (Russian) [Ill-posed problems of mathematical physics and analysis] **82g:65003**
Lučka, A. Ju. ★Проекционно-итеративные методы решения дифференциальных и интегральных уравнений. (Russian) [Projective-iterative methods for solving differential and integral equations] **82e:65001**
Romanov, V. G. *See* **Lavrent'ev, M. M.; et al., 82g:65003**
Šišatskiĭ, S. P. *See* **Lavrent'ev, M. M.; et al., 82g:65003**
Tihonov, A. N. (*with* Arsenin, V. Ja.) ★Методы решения некорректных задач. (Russian) [Methods for the solution of ill-posed problems] **82e:65002**

secondary classifications:

Bahvalov, N. S. ★Méthodes numériques. (French) [Numerical methods] **(82f:65001)**

Gregory, John ★Quadratic form theory and differential equations. **(82d:49001)**
(Hansen, Pierre) *See* **A look at graph theory, (82d:05054)**
Kurpel', M. S. (*with* Šuvar, B. A.) ★Двусторонние операторные неравенства и их применения. (Russian) [Two-sided operator inequalities and their applications] **(82j:47002)**
(Petrova, Irina) *See* **Bahvalov, N. S., (82f:65001)**
Šuvar, B. A. *See* **Kurpel', M. S., (82j:47002)**
(de Werra, D.) *See* **A look at graph theory, (82d:05054)**
A look at graph theory ★Regards sur la théorie des graphes. (French) [A look at graph theory] **(82d:05054)**
Cerisy ★Regards sur la théorie des graphes. (French) [A look at graph theory] **(82d:05054)**
Colloquium:
A Look at Graph Theory ★Regards sur la théorie des graphes. (French) [A look at graph theory] **(82d:05054)**
Graph theory ★Regards sur la théorie des graphes. (French) [A look at graph theory] **(82d:05054)**

65–03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

(Bessel, Friedrich Wilhelm) *See* **Gauß, Carl Friedrich, (82j:01076)**
Bićanić, N. (*with* Johnson, K. H.) Who was "Raphson"? **(82f:01029)**
Elliott, David Lagrange interpolation—decline and fall? **(82e:01060)**
(Euler, Leonhard) *See* **Golovinskiĭ, I. A., (82k:01018)**
Faddeev, D. K. (*with* Faddeeva, V. N.) A view of the development of numerical methods of linear algebra. (Russian) **(82e:01073)**
Faddeeva, V. N. *See* **Faddeev, D. K., (82e:01073)**
Gauß, Carl Friedrich ★Werke. Ergänzungsreihe. Band I. (German) [Collected works. Supplementary series. Vol. I] **(82j:01076)**
See also **Heinrich, Helmut, (82f:01049)** *and* **(82i:01029)**
(Goldstine, H. H.) *See* **Salzer, Herbert E., (82b:01001)**
Golovinskiĭ, I. A. Interpolation of sequences in the work of Wallis and Euler. (Russian. English summary) **(82k:01018)**
Heinrich, Helmut Über Gauß' Beiträge zur numerischen Mathematik. **(82f:01049)**
Über Gauss' Beiträge zur numerischen Mathematik. **(82i:01029)**
Johnson, K. H. *See* **Bićanić, N., (82f:01029)**
Salzer, Herbert E. Errata: *A history of numerical analysis from the 16th through the 19th century* [Springer, New York, 1977; MR **58** #4774] by H. H. Goldstine. **(82b:01001)**
Schmidt, Jochen W. Zur Numerik nichtlinearer Probleme—Aufgaben, Algorithmen und Programme. **(82f:65002)**
(Wallis, John) *See* **Golovinskiĭ, I. A., (82k:01018)**
Correspondence:
Gauss, Carl Friedrich–Bessel, Friedrich Wilhelm *See* **Gauß, Carl Friedrich, (82j:01076)**

65–04 Explicit machine computation and programs (not the theory of computation or programming)

Albasiny, E. L. A subroutine for solving a system of differential equations in Chebyshev series. (*See* **82b:65074**)
Ascher, U. (*with* Christiansen, J.; Russell, Robert D.) COLSYS—a collocation code for boundary-value problems. (*See* **82b:65074**)
Bykov, I. A. (*with* Tihonova, I. M.) Algorithms for digital processing of borehole azimuthal observations. (Russian) (*See* **82k:86002**)
Childs, Bart (*with* Porter, H. R. "Skip") QUASII—a system identification code. (*See* **82b:65074**)
Demonstration of working codes. (*See* **82b:65074**)
Christiansen, J. *See* **Ascher, U.; et al., (*See* 82b:65074)**
Čistjakova, T. V. *See* **Zubatenko, V. S.; et al., (*See* 82i:65002)**
Hamacher, Horst Numerical investigations on the maximal flow algorithm of Karzanov. (German summary) **82e:65003**
Himič, A. N. *See* **Zubatenko, V. S.; et al., (*See* 82i:65002)**
Kahan, William M. Handheld calculator evaluates integrals. **82d:65001**
McNamee, John Michael A program to integrate a function tabulated at unequal intervals. **82b:65001**
Pankov, P. S. ★Доказательные вычисления на электронных вычислительных машинах. (Russian) [Demonstrative calculations on a computer] **82a:65003**
Porter, H. R. "Skip" *See* **Childs, Bart, (*See* 82b:65074)**
Russell, Robert D. *See* **Ascher, U.; et al., (*See* 82b:65074)**
Späth, H. Algorithm 39. Clusterwise linear regression. (German summary) **82f:65003a**
Correction to: "Algorithm 39: clusterwise linear regression" [Computing **22** (1979), no. 4, 367–373]. **82f:65003b**
Stabrowski, Marek An algorithm for the solution of very large banded unsymmetric linear equation systems. **82f:65004**
Stevenson, David K. Numerical algorithms for parallel computers. (*See* **82f:68004**)
Tihonova, I. M. *See* **Bykov, I. A., (*See* 82k:86002**)
White, Andrew B., Jr. Mesh selection for boundary-value codes. (*See* **82b:65074**)
Zubatenko, V. S. (*with* Himič, A. N.; Čistjakova, T. V.) Structure and organization of a package for the solution of systems of linear algebraic equations. (Russian) (*See* **82i:65002**)

secondary classifications:

Andersen, C. M. *See* **Noor, Ahmed K., (82h:73064)**
Babuška, Ivo (*with* Rheinboldt, Werner C.) Reliable error estimation and mesh adaptation for the finite element method. **(82f:65109)**
Burrage, Kevin (*with* Butcher, John; Chipman, F. H.) An implementation of singly-implicit Runge-Kutta methods. **(82h:65049)**
Butcher, John *See* **Burrage, Kevin; et al., (82h:65049)**
Chipman, F. H. *See* **Burrage, Kevin; et al., (82h:65049)**
Davenport, J. H. *See* **Norman, A. C., (82h:68031)**
de Doncker, Elise *See* **Robinson, I., (82k:65011)**
Everstine, Gordon C. Structural analogies for scalar field problems. **(82d:73050)**
Forsythe, George E. (*with* Malcolm, Michael A.; Moler, Cleve B.) ★Машинные методы математических вычислений. (Russian) [Computer methods for mathematical computations] **(82a:65001)**
Ginsberg, Myron Monitoring floating-point error propagation in scientific computation. **(82a:65031)**
Golub, G. P. Computer solution of statics problems for orthotropic shells of revolution of complex form using an improved model. **(82d:73060)**
Gutknecht, Martin H. Fast algorithms for the conjugate periodic function. (German summary) **(82e:65137)**
(Ikramov, H. D.) *See* **Forsythe, George E.; et al., (82a:65001)**
Juldašev, Z. H. Correction of interval boundaries in machine interval arithmetic with inclusion of initial operands. (Russian) **(82k:65021)**
Kenig, Carlos E. (*with* Korostelev, A. P.) Method of solving one class of parabolic equations on a system of piecewise-homogeneous rods and its implementation on hybrid computers for control problems. **(82h:65088)**
Korostelev, A. P. *See* **Kenig, Carlos E., (82h:65088)**
Malcolm, Michael A. *See* **Forsythe, George E.; et al., (82a:65001)**
Moler, Cleve B. *See* **Forsythe, George E.; et al., (82a:65001)**
Noor, Ahmed K. (*with* Andersen, C. M.) Computerized symbolic manipulation in nonlinear finite element analysis. **(82h:73064)**
Norman, A. C. (*with* Davenport, J. H.) Symbolic integration—the dust settles? **(82h:68031)**
Olson, A. M. The solution of second order problems with a symbolic-numeric method. (*See* **82b:65074**)
Pissanetzky, Sergio KUBIK: an automatic three-dimensional finite element mesh generator. **(82e:65078)**
Pitts, Joan I. *See* **Smith, Robert E., (82c:76085)**
Pollard, J. H. ★Numerical and statistical techniques. **(82j:65031)**
Rall, Louis B. Applications of software for automatic differentiation in numerical computation. **(82e:65021)**
Rheinboldt, Werner C. *See* **Babuška, Ivo, (82f:65109)**
Robinson, I. (*with* de Doncker, Elise) Algorithm 45. Automatic computation of improper integrals over a bounded or unbounded planar region. (German summary) **(82k:65011)**
Robinson, Kenneth Survey of finite element software—a consumers guide to availability, costs and scope. (*See* **82c:65001**)
Smith, Robert E. (*with* Pitts, Joan I.) The solution of the three-dimensional viscous-compressible Navier-Stokes equations on a vector computer. **(82c:76085)**
Wavrik, John Computers and the multiplicity of polynomial roots. **(82m:12002)**
Zabusky, Norman J. Computational synergetics and mathematical innovation. **(82m:00029)**

65–06 Proceedings, conferences, etc.

(Anapol'skiĭ, L. Ju.) *See* **Vector-valued Ljapunov functions and their construction, 82d:65004**
(Avdonins, N.) *See* **Applied problems of theoretical and mathematical physics, 82d:65002**
(Banerjee, P. K.) *See* **Developments in boundary element methods, 82f:65005**
(Bush, A. W.) *See* **Modelling and simulation in practice, 82c:65001**
(Butterfield, R.) *See* **Developments in boundary element methods, 82f:65005**
(Cross, Mark) *See* **Modelling and simulation in practice, 82c:65001**
(Gibson, R. D.) *See* **Modelling and simulation in practice, 82c:65001**
(Hebermehl, Georg) *See* **Numerical treatment of mathematical model equations, 82e:65004**
(Il'in, V. P.) *See* **Numerical methods and questions in the organization of calculations, 82g:65005**
(Kublanovskaja, V. N.) *See* **Numerical methods and questions in the organization of calculations, 82g:65005**
(Marčuk, G. I.) *See* **Methods for solving systems of variational-difference equations, 82i:65001**
(Matrosov, V. M.) *See* **Vector-valued Ljapunov functions and their construction, 82d:65004**
(Mori, Masatake) *See* **Numerical integration and related topics, 82c:65002**
(O'Carroll, M. J.) *See* **Modelling and simulation in practice, 82c:65001**
(Sergeenko, I. V.) *See* **Numerical methods, 82i:65002**
(Sobolev, S. L.) *See* **Theory of cubature formulas and numerical mathematics, 82d:65003** *and* **Theory of cubature formulas and the application of functional analysis to problems of mathematical physics, 82j:65001**
(Stepanenko, E. N.) *See* **Questions on numerical mathematics, 82i:65003**
(Stepleman, R. S.) *See* **Advances in computer methods for partial differential equations, 82a:65005**
(Uspenskiĭ, S. V.) *See* **Theory of cubature formulas and the application of functional analysis to problems of mathematical physics, 82j:65001**
(Verwer, J. G.) *See* **Colloquium: Numerical Solution of Partial Differential Equations, 82a:65006**
(Vichnevetsky, R.) *See* **Advances in computer methods for partial differential equations, 82a:65004** *and* **82a:65005**
(Wilkinson, T. S.) *See* **Modelling and simulation in practice, 82c:65001**
(Zaharova, M. N.) *See* **Approximate solution of some problems for differential and integral equations of applied character, 82g:65004**
Advances in computer methods for partial differential equations ★Advances in computer methods for partial differential equations. II. **82a:65004**
★Advances in computer methods for partial differential equations. III. **82a:65005**
Amsterdam ★Colloquium: Numerical Solution of Partial Differential Equations. **82a:65006**

Applied problems of theoretical and mathematical physics ★Прикладные задачи теоретической и математической физики. (Russian) [Applied problems of theoretical and mathematical physics] **82d:65002**
Approximate solution of some problems for differential and integral equations of applied character ★Приближенное решение некоторых задач для дифференциальных и интегральных уравнений прикладного характера. (Russian) [Approximate solution of some problems for differential and integral equations of applied character] **82g:65004**
Bethlehem, Pa. ★Advances in computer methods for partial differential equations. II. **82a:65004**
★Advances in computer methods for partial differential equations. III. **82a:65005**
Boundary element methods ★Developments in boundary element methods. 1. **82f:65005**
Colloquium:
Numerical Solution of Partial Differential Equations ★Colloquium: Numerical Solution of Partial Differential Equations. **82a:65006**
Computer methods ★Advances in computer methods for partial differential equations. II. **82a:65004**
★Advances in computer methods for partial differential equations. III. **82a:65005**
Conference:
Differential Equations and Numerical Mathematics ★Теория кубатурных формул и вычислительная математика. (Russian) [Theory of cubature formulas and numerical mathematics] **82d:65003**
Polymodel ★Modelling and simulation in practice. 2. **82c:65001**
Problems in Applied Mathematics ★Numerische Behandlung mathematischer Modellgleichungen. (German) [Numerical treatment of mathematical model equations] **82e:65004**
Delft ★Colloquium: Numerical Solution of Partial Differential Equations. **82a:65006**
Developments in boundary element methods ★Developments in boundary element methods. 1. **82f:65005**
Differential equations ★Теория кубатурных формул и вычислительная математика. (Russian) [Theory of cubature formulas and numerical mathematics] **82d:65003**
★Приближенное решение некоторых задач для дифференциальных и интегральных уравнений прикладного характера. (Russian) [Approximate solution of some problems for differential and integral equations of applied character] **82g:65004**
IMACS Symposium:
Computer Methods for Partial Differential Equations ★Advances in computer methods for partial differential equations. II. **82a:65004**
★Advances in computer methods for partial differential equations. III. **82a:65005**
Integral equations ★Приближенное решение некоторых задач для дифференциальных и интегральных уравнений прикладного характера. (Russian) [Approximate solution of some problems for differential and integral equations of applied character] **82g:65004**
Matzlow/Garwitz ★Numerische Behandlung mathematischer Modellgleichungen. (German) [Numerical treatment of mathematical model equations] **82e:65004**
Methods for solving systems of variational-difference equations ★Методы решения систем вариационно-разностных уравнений. Вып. 5. (Russian) [Methods for solving systems of variational-difference equations. No. 5] **82i:65001**
Middlesbrough ★Modelling and simulation in practice. 2. **82c:65001**
Modelling and simulation in practice ★Modelling and simulation in practice. 2. **82c:65001**
Nijmegen ★Colloquium: Numerical Solution of Partial Differential Equations. **82a:65006**
Novosibirsk ★Методы решения систем вариационно-разностных уравнений. Вып. 5. (Russian) [Methods for solving systems of variational-difference equations. No. 5] **82i:65001**
★Теория кубатурных формул и вычислительная математика. (Russian) [Theory of cubature formulas and numerical mathematics] **82d:65003**
Numerical algorithms ★Studies on numerical algorithms. (Japanese) **82g:65006**
Numerical integration and related topics ★Numerical integration and related topics. **82c:65002**
Numerical mathematics ★Теория кубатурных формул и вычислительная математика. (Russian) [Theory of cubature formulas and numerical mathematics] **82d:65003**
Numerical methods ★Некоторые численные методы. (Russian) [Some numerical methods] **82i:65002**
Numerical methods and questions in the organization of calculations ★Численные методы и вопросы организации вычислений. 5. (Russian) [Numerical methods and questions in the organization of calculations. 5] **82g:65005**
Numerical solution of partial differential equations ★Colloquium: Numerical Solution of Partial Differential Equations. **82a:65006**
Numerical treatment of mathematical model equations ★Numerische Behandlung mathematischer Modellgleichungen. (German) [Numerical treatment of mathematical model equations] **82e:65004**
Partial differential equations ★Advances in computer methods for partial differential equations. II. **82a:65004**
★Advances in computer methods for partial differential equations. III. **82a:65005**
★Colloquium: Numerical Solution of Partial Differential Equations. **82a:65006**
Physics ★Прикладные задачи теоретической и математической физики. (Russian) [Applied problems of theoretical and mathematical physics] **82d:65002**
Proceedings of the S. L. Sobolev Seminar, No. 1 ★Теория кубатурных формул и приложения функционального анализа к задачам математической физики. (Russian) [Theory of cubature formulas and the application of functional analysis to problems of mathematical physics] **82j:65001**
Questions on numerical mathematics ★Некоторые вопросы вычислительной математики. (Russian) [Questions on numerical mathematics] **82i:65003**
Seminar:
Methods of Numerical and Applied Mathematics ★Методы решения систем вариационно-разностных уравнений. Вып. 5. (Russian) [Methods for solving systems of variational-difference equations. No. 5] **82i:65001**
Seminar: (*continued*)
Numerical Integration and Related Topics ★Numerical integration and related topics. **82c:65002**
Studies on numerical algorithms ★Studies on numerical algorithms. (Japanese) **82g:65006**
Study of algorithms of numerical calculation ★Study of algorithms of numerical calculation. (Japanese) **82a:65007**
Symposium:
Studies on Numerical Algorithms ★Studies on numerical algorithms. (Japanese) **82g:65006**
Study of Algorithms of Numerical Calculation ★Study of algorithms of numerical calculation. (Japanese) **82a:65007**
Theory of cubature formulas and the application of functional analysis to problems of mathematical physics ★Теория кубатурных формул и приложения функционального анализа к задачам математической физики. (Russian) [Theory of cubature formulas and the application of functional analysis to problems of mathematical physics] **82j:65001**
Theory of cubature formulas and numerical mathematics ★Теория кубатурных формул и вычислительная математика. (Russian) [Theory of cubature formulas and numerical mathematics] **82d:65003**
Vector-valued Ljapunov functions and their construction ★Вектор-функция Ляпунова и их построение. (Russian) [Vector-valued Ljapunov functions and their construction] **82d:65004**

secondary classifications:

(Björck, Åke) *See* **Large scale matrix problems, (82j:65017)**
(Childs, Bart) *See* **Codes for boundary value problems in ordinary differential equations, (82b:65074)**
(Collatz, Lothar) *See* **Constructive methods of finite nonlinear optimization, (82g:49001)**
(Daniel, James W.) *See* **Codes for boundary value problems in ordinary differential equations, (82b:65074)**
(Denman, Eugene D.) *See* **Codes for boundary value problems in ordinary differential equations, (82b:65074)**
(Dwarakanath, M. H.) *See* **Electric power problems: the mathematical challenge, (82a:90004)**
(Erisman, Albert M.) *See* **Electric power problems: the mathematical challenge, (82a:90004)**
(Lewis, R. W.) *See* **Numerical methods in thermal problems, (82g:80001)**
(MacCormack, Robert William) *See* **Conference: Numerical Methods in Fluid Dynamics, (82h:76002)**
(Meek, D. S.) *See* **Proceedings: Manitoba Conference on Numerical Mathematics and Computing, (82j:00010)** *and* **(82j:00011)**
(Meinardus, Günter) *See* **Constructive methods of finite nonlinear optimization, (82g:49001)**
(Morgan, K.) *See* **Numerical methods in thermal problems, (82g:80001)**
(Nelson, Paul, Jr.) *See* **Codes for boundary value problems in ordinary differential equations, (82b:65074)**
(Neves, K. W.) *See* **Electric power problems: the mathematical challenge, (82a:90004)**
(Plemmons, Robert J.) *See* **Large scale matrix problems, (82j:65017)**
(Reynolds, William Craig) *See* **Conference: Numerical Methods in Fluid Dynamics, (82h:76002)**
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(Scott, Melvin R.) *See* **Codes for boundary value problems in ordinary differential equations, (82b:65074)**
(Spalviņš, A.) *See* **Computer technology and boundary value problems, (82i:65085a)**
(Stepanenko, E. N.) *See* **Stochastic methods in problems of optimization, (82d:90003)**
(Wetterling, Wolfgang) *See* **Constructive methods of finite nonlinear optimization, (82g:49001)**
(Williams, H. C.) *See* **Proceedings: Manitoba Conference on Numerical Mathematics and Computing, (82j:00010)** *and* **(82j:00011)**
(Ziegler, Zvi) *See* **Approximation theory and applications, (82d:41001)**
Applications of partial differential equations and numerical analysis ★Applications of partial differential equations and numerical analysis. (Japanese) **(82g:35003)**
Approximation theory and applications ★Approximation theory and applications. **(82d:41001)**
Boundary value problems ★Codes for boundary value problems in ordinary differential equations. **(82b:65074)**
Codes for boundary value problems in ordinary differential equations ★Codes for boundary value problems in ordinary differential equations. **(82b:65074)**
Computer science ★1979 International Symposium on Circuits and Systems. **(82e:94002)**
Computer technology and boundary value problems ★Вычислительная техника и краевые задачи. Вып. 19. (Russian) [Computer technology and boundary value problems. No. 19] **(82i:65085a)**
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Numerical Methods in Thermal Problems ★Numerical methods in thermal problems. **(82g:80001)**
Constructive methods of finite nonlinear optimization ★Konstruktive Methoden der

finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**

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Haifa ★Approximation theory and applications. **(82d:41001)**

Houston, Tex. ★Codes for boundary value problems in ordinary differential equations. **(82b:65074)**

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Large scale matrix problems ★Large scale matrix problems. **(82j:65017)**

Meeting:

Constructive Methods of Finite Nonlinear Optimization ★Konstruktive Methoden der finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**

Moffett Field, Calif. ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**

Numerical methods ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**

Numerical methods in thermal problems ★Numerical methods in thermal problems. **(82g:80001)**

Oberwolfach ★Konstruktive Methoden der finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**

Optimization ★Стохастические методы в задачах оптимизации. (Russian) [Stochastic methods in problems of optimization] **(82d:90003)**

★Konstruktive Methoden der finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**

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Stanford, Calif. ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**

Stochastic methods in problems of optimization ★Стохастические методы в задачах оптимизации. (Russian) [Stochastic methods in problems of optimization] **(82d:90003)**

Swansea ★Numerical methods in thermal problems. **(82g:80001)**

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Applications of Partial Differential Equations and Numerical Analysis ★Applications of partial differential equations and numerical analysis. (Japanese) **(82g:35003)**

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Workshop:

Approximation Theory and Applications ★Approximation theory and applications. **(82d:41001)**

65A05 Tables

(Byrd, P. F.) *See* **Fettis, Henry E., 82a:65008**

(Caslin, J. C.) *See* **Fettis, Henry E., 82a:65010**

(Erdélyi, A.) *See* **Fettis, Henry E., 82g:65007a** *and* **Stuart, S. N., 82g:65007b**

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Ling, Chih Bing (*with* Wu, Ming Jing) Evaluation of integrals of Howland type involving a Bessel function. **82m:65003**

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(Oberhettinger, F.) *See* **Temme, N. M., 82a:65011a**; **Pexton, Robert L., 82a:65011b**; **Fettis, Henry E., 82g:65007a** *and* **Stuart, S. N., 82g:65007b**

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(Ryžik, I. M.) *See* **Fettis, Henry E., 82a:65009** *and* **Gallas, Jason A. Carlson, 82c:65003**

(Soni, Raj P.) *See* **Temme, N. M., 82a:65011a** *and* **Pexton, Robert L., 82a:65011b**

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Mihara, Kikuo The earliest table of trigonometric functions, the "chord table" in the *Almagest*. (Japanese) **(82e:01011)**

Spigler, Renato Some results on the zeros of cylindrical functions and of their derivatives. (Italian. English summary) **(82g:33020)**

65Bxx Acceleration of convergence

65B05 Extrapolation to the limit, deferred corrections

Baron, Gino Victor (*with* Wajc, S. J.) Convergence acceleration of nonscalar sequences with nonlinear transformations. **82i:65004**

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Grosse, Eric *See* **Bjørstad, Petter; et al., 82e:65005**

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65B10 Summation of series

Cohen, Alan Max On improving convergence of alternating series. **82d:65005**

Ford, William F. *See* **Smith, David A., 82a:65012**

Kiefer, James E. (*with* Weiss, George H.) A comparison of two methods for accelerating the convergence of Fourier series. **82m:65004**

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65B15 Euler-Maclaurin formula

secondary classifications:

Philip, J. R. The symmetrical Euler-Maclaurin summation formula. **(82g:40002)**

65B20 Poisson formula, etc.

65B99 None of the above, but in this section

King, Richard F. An efficient one-point extrapolation method for linear convergence. **82b:65004**

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Delahaye, J.-P. Détermination de la période d'une suite pseudo-périodique. (English summary) **(82b:58053)**
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65Cxx Numerical simulation {For theoretical aspects, see 68Jxx.}

65C05 Monte Carlo methods

Babordin, K. A. A method for solving the Dirichlet problem for the Poisson equation by the Monte Carlo method on a hybrid computing system. (Russian. English summary) **82k:65001**
Berg, B. (*with* Foerster, D.) Random paths and random surfaces on a digital computer. **82k:65002**
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Kondjurin, Ju. N. Some questions of optimization of the Metropolis method. (Russian) **82k:65003**
Korjakin, A. I. Randomized estimation of Fourier coefficients for expansion of a function in L_2. (Russian) **82h:65002**
Liu, De Ming A Monte Carlo solution of a radiation transport equation. (Chinese. English summary) **82m:65005**
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Šematovič, V. I. *See* **Zmievskaja, G. I.; et al., 82i:65006**
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Ždanok, A. I. Random inspection algorithms in an environment of noise. (Russian) **82d:65008**
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Brent, Richard P. An improved Monte Carlo factorization algorithm. **(82a:10007)**
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Čebotarev, A. M. *See* **Maslov, V. P., (82c:81044)**
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Freis, Robert P. *See* **Cohen, Bruce I.; et al., (82c:82079)**
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Iglehart, Donald L. (*with* Shedler, Gerald S.) ★Regenerative simulation of response times in networks of queues. **(82a:68181)**
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Mihalko, Daniel (*with* Tong, Yung Liang) A sequential regression method in Monte Carlo studies. **(82a:62130)**
Musihin, S. G. *See* **Mihaĭlov, G. A., (82h:82056)**
Platen, Eckhard ★An approximation method for a class of Itô processes with jump component. **(82a:60094)**
Ree, Francis H. *See* **Yoon, Kyonggeun; et al., (82c:82001)**
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Sultanov, A. H. *See* **Bakirov, N. K., (82j:60128)**
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65C10 Random number generation

Deák, István Fast procedures for generating stationary normal vectors. **82f:65007**
A fast normal random number generator. (Hungarian. English summary) **82i:65007**
An economical method for random number generation and a normal generator. (German summary) **82m:65006**
Devroye, Luc Generating the maximum of independent identically distributed random variables. **82d:65009**
Gács, Péter Exact expressions for some randomness tests. **82c:65004**
Ichimura, Minoru Run test for single-digit random numbers. **82d:65010**
Kinderman, A. J. (*with* Monahan, J. F.) New methods for generating Student's t and gamma variables. (German summary) **82e:65008**
Lakhan, V. Chris Generating autocorrelated pseudorandom numbers with specific distributions. **82h:65004**
Monahan, J. F. *See* **Kinderman, A. J., 82e:65008**
Pangratz, Heinrich (*with* Weinrichter, Hans) Pseudorandom number generator based on binary and quinary maximal-length sequences. **82j:65002**
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secondary classifications:

Arons, H. de Swaan *See* **Brok, S. W.; et al., (***See* **82k:68003)**
Brok, S. W. (*with* Dekker, L.; Arons, H. de Swaan) Parallel random number generators for the use in parallel processors. (*See* **82k:68003)**
Dekker, L. *See* **Brok, S. W.; et al., (***See* **82k:68003)**
Devroye, Luc The computer generation of Poisson random variables. (German summary) **(82g:60003)**
Horibe, Yasuichi Entropy and an optimal random number transformation. **(82m:94025)**
Kronmal, Richard A. (*with* Peterson, Arthur V., Jr.) A variant of the acceptance-rejection method for computer generation of random variables. **(82h:62037)**
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Tichy, Robert F. Ein metrischer Satz in der Theorie der Gleichverteilung. **(82c:10061)**
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65C20 Models, numerical methods

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Bona, Jerry L. Solitary waves. **(82g:35100)**
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Greenspan, Donald A new computer approach to the modeling of atoms, ions and molecules. I. Hydrogen. **(82i:81162)**
Hominal, Pierre *See* **Deheuvels, Paul, (82j:62026)**
Hryniewicz, Z. Numerical generation methods of homogeneous and nonhomogeneous two-dimensional Gaussian random fields. **(82g:60067)**
Ivahnenko, O. G. (*with* Rao, M. G.) Prediction and extrapolation of meteorological fields by model self-organization. **(82b:86004)**
Lamb, Robert G. A scheme for simulating particle pair motions in turbulent fluid. **(82d:76057)**
Marchesin, Dan *See* **Glimm, James; et al., (82g:76038)**
Marinari, E. *See* **Fucito, F.; et al., (82h:81045)**
McBryan, Oliver A. *See* **Glimm, James; et al., (82g:76038)**

Parisi, Giorgio Correlation functions and computer simulations. **(82h:81112)**
See also **Fucito, F.; et al., (82h:81045)**
Rao, M. G. *See* **Ivahnenko, O. G., (82h:86004)**
Rebbi, C. *See* **Fucito, F.; et al., (82h:81045)**
Rubinstein, Y. Selecting the best stable stochastic system. **(82g:60113)**
Schagen, I. P. Stochastic interpolating functions—applications in optimization. **(82c:65006)**
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65C99 None of the above, but in this section

Dragilev, A. V. Determination of periodic solutions for ordinary differential equations by computer. (Russian) (*See* **82i:65002**)

secondary classifications:

Brent, Richard P. Succinct proofs of primality for the factors of some Fermat numbers. **(82k:10002)**
Ellner, Paul M. (*with* Stark, Robert M.) On the distribution of the optimal value for a class of stochastic geometric programs. **(82d:90086)**
Gabay, Daniel (*with* Nepomiastchy, Pierre; Rachdi, M'hamed; Ravelli, Alain) Numerical methods for simulation and optimal control of large-scale macroeconomic models. **(82k:90040)**
Nepomiastchy, Pierre *See* **Gabay, Daniel; et al., (82k:90040)**
Rachdi, M'hamed *See* **Gabay, Daniel; et al., (82k:90040)**
Ravelli, Alain *See* **Gabay, Daniel; et al., (82k:90040)**
Stark, Robert M. *See* **Ellner, Paul M., (82d:90086)**

65Dxx Numerical approximation {Primarily algorithms; for theory, see 41–XX.}

secondary classifications:

Dobbs, David E. (*with* Hanks, Robert) ★A modern course on the theory of equations. **(82c:00003)**
(Freeman, Herbert) *See* **Map data processing, (82m:68006a)**
Hanks, Robert *See* **Dobbs, David E., (82c:00003)**
(Pieroni, Goffredo G.) *See* **Map data processing, (82m:68006a)**
Map data processing ★Map data processing. **(82m:68006a)**
Maratea ★Map data processing. **(82m:68006a)**
NATO Advanced Study Institute:
Map Data Processing ★Map data processing. **(82m:68006a)**

65D05 Interpolation

Arndt, Herbert Ein verallgemeinerter Kettenbruch-Algorithmus zur rationalen Hermite-Interpolation. (English summary) **82b:65005**
Brezinski, Claude The Mühlbach-Neville-Aitken algorithm and some extensions. **82c:65009**
Franke, Richard (*with* Nielson, Gregory M.) Smooth interpolation of large sets of scattered data. **82d:65011**
Scattered data interpolation: tests of some methods. **82m:65008**
Graves-Morris, P. R. (*with* Hopkins, T. R.) Reliable rational interpolation. **82f:65008**
Greville, T. N. E. (*with* Vaughan, Hubert) Smoothest local interpolation formulas for equally spaced data. (*See* **82k:00010**)
Hopkins, T. R. *See* **Graves-Morris, P. R., 82f:65008**
Hoppe, Viggo High order polynomial elements with isoparametric mapping. **82d:65012**
Iserles, Arieh Rational interpolation to $\exp(-x)$ with application to certain stiff systems. **82d:65013**
Mangeron, Dumitru Ion *See* **Nielson, Gregory M., 82h:65005**
Marinescu, Elvira Determination of a function on a two-dimensional interval from boundary conditions. (Romanian. French summary) **82j:65003**
Newbery, A. C. R. A consistency test for interpolators. **82m:65009**
Nielson, Gregory M. (*with* Mangeron, Dumitru Ion) Bilinear interpolation in triangles based upon a Mangeron theorem. **82h:65005**
Blending methods of minimum norm for triangular domains. **82c:65005**
See also **Franke, Richard, 82d:65011**
Schagen, I. P. Stochastic interpolating functions—applications in optimization. **82c:65006**
So, Bong Hak On an interpolation formula in $\mathbf{R}^n$ using many-fold vectors. (Korean. English summary) **82c:65007**
Vaughan, Hubert *See* **Greville, T. N. E., (*See* 82k:00010)**
Werner, Helmut Numerical algorithms for interpolation and smoothing. **82m:68006b**
Remarks on Newton type multivariate interpolation for subsets of grids. (German summary) **82e:65010**

secondary classifications:

Bojanić, R. Necessary and sufficient conditions for the convergence of the extended Hermite-Fejér interpolation process. **(82f:41005)**
de Boor, Carl What is the main diagonal of a bi-infinite band matrix? **(82e:41014)**
Buneman, Oscar Tetrahedral finite elements for interpolation. **(82a:65088)**
Delvos, F.-J. (*with* Posdorf, H.) A Boolean method in bivariate interpolation. **(82j:41002)**
Dragt, Alex J. Transfer map approach to the beam-beam interaction. **(82i:78027)**
Elliott, David Lagrange interpolation—decline and fall? **(82e:01060)**
Golumbovici, Dan (*with* Pop, Radu) Step-by-step linear interpolator with the computation of the discriminant and minimization of the interpolation error. (Romanian. English summary) **(82g:68094)**
Hakopian, Hakop Les différences divisées de plusieurs variables et les interpolations multidimensionnelles de types lagrangien et hermitien. (English summary) **(82c:41004)**
Hut'a, Anton On exponential interpolation. (Slovak and Russian summaries) **(82c:41005)**
Lorentz, G. G. Symmetry in Birkhoff matrices. **(82j:41006)**
Mangeron, Dumitru Ion *See* **Nielson, Gregory M., (82m:41002)**
le Mehaute, Alain Prolongement d'un champ taylorien connu sur les côtes d'un triangle. (English summary) **(82a:41005)**
Mühlbach, G. An algorithmic approach to finite linear interpolation. **(82e:41009)**
Nielson, Gregory M. (*with* Mangeron, Dumitru Ion) Bilinear interpolation in triangles based upon a Mangeron theorem. (Spanish summary) **(82m:41002)**
Ormsby, J. F. A. Generalized interpolation, sampling expressions, and their relationship. **(82k:94006)**
Pop, Radu *See* **Golumbovici, Dan, (82g:68094)**
Posdorf, H. *See* **Delvos, F.-J., (82j:41002)**
Rahman, Q. I. Some questions of uniqueness concerning interpolation by entire functions of exponential type. **(82g:30069)**
Roulier, John A. Constrained interpolation. **(82e:41018)**
Rumjancev, I. A. ★Локальные методы интерполяции. (Russian) [Local methods of interpolation] **(82f:41002)**
Salzer, Herbert E. Note on trigonometric divided differences. **(82c:41008)**
Scherer, R. (*with* Zeller, K.) Gestufte Approximation in zwei Variablen. (English summary) **(82d:41046)**
Strygin, V. V. (*with* Strygina, S. O.) ★Алгебраическое интерполирование. (Russian) [Algebraic interpolation] **(82f:41009)**
Strygina, S. O. *See* **Strygin, V. V., (82f:41009)**
Zeller, K. *See* **Scherer, R., (82d:41046)**

65D07 Splines

Aziz, Tariq *See* **Jain, M. K., 82h:65008**
Bailyev, K. N. *See* **Ljašenko, Î. M., 82d:65018**
Bessonov, E. V. *See* **Poljakov, R. V., 82c:65010**
Chatterjee, A. (*with* Dikshit, H. P.) Complex cubic spline interpolation. **82g:65010**
Dahmen, Wolfgang A. Multivariate *B*-splines—recurrence relations and linear combinations of truncated powers. **82c:65008**
Approximation by smooth multivariate splines on nonuniform grids. **82d:65014**
(*with* Micchelli, Charles A.) Computation of inner products of multivariate *B*-splines. **82h:65006**
Dierckx, P. Algorithm/Algorithmus 42. An algorithm for cubic spline fitting with convexity constraints. (German summary) **82h:65007**
Dikshit, H. P. *See* **Chatterjee, A., 82g:65010**
Gutknecht, Martin H. Two applications of periodic splines. **82d:65015**
Hartley, Peter On using curved knot lines. **82b:65006**
Jain, M. K. (*with* Aziz, Tariq) Spline function approximation for differential equations. **82h:65008**
Kime, Ha Jine Numerical construction of cubic-quartic (second-order) spline fits. **82d:65016**
Kobkov, V. V. Convergence of cubic splines with supplementary nodes. (Russian) **82d:65017**
Ljašenko, Î. M. (*with* Baĭlyev, K. N.) Application of the spline-function method to determine eigenvalues and eigenfunctions of the Laplace operator for polygonal domains. (Russian. Turkmen and English summaries) **82d:65018**
McAllister, David F. (*with* Roulier, John A.) An algorithm for computing a shape-preserving osculatory quadratic spline. **82h:65009**
Merz, Gerhard Normen von Spline-Interpolationsoperatoren. **82c:65009**
Eine Kettenbruchdarstellung für die Norm des kubischen periodischen Spline-Interpolationsoperators. **82b:65007**
Micchelli, Charles A. *See* **Dahmen, Wolfgang A., 82h:65006**
Mülthei, Heinrich N. (*with* Schorr, B.) Error analysis for a special *X*-spline. (German summary) **82e:65011**
Poljakov, R. V. (*with* Bessonov, E. V.) An application of bicubic splines to the solution of two-dimensional integral equations of the second kind with constant limits. (Russian) **82c:65010**
Popov, B. A. Approximation splines with a given error. (Russian) **82e:65012**
Pruess, Steven Alternatives to the exponential spline in tension. **82f:65009**
Roulier, John A. *See* **McAllister, David F., 82h:65009**
Schorr, B. *See* **Mülthei, Heinrich N., 82e:65011**
Sha, Zhen A theorem on lacunary interpolation by splines. (Chinese) **82g:65011**
Sun, Jia Chang Variational properties of cubic splines in local coordinates. (Chinese) **82j:65004**
Utreras Diaz, Florencio I. On computing robust splines and applications. **82f:65010**
Wang, Ren Hong *See* **Wu, Shun Tang, 82m:65010**
Wu, Shun Tang (*with* Wang, Ren Hong) On a problem of rational spline interpolation. (Chinese. English summary) **82m:65010**
Xie, Shen Quan Quadratic and cubic spline interpolation and their variational properties. (Chinese) **82j:65005**
Xiong, Zhen Xiang Uniform convergence of the sequences of functions $\{f_{2j+1}(t)\}$ and $\{g_{2j+1}(t)\}$. (Chinese. English summary) **82k:65004**
Xu, Shi Ying The convergence of cubic spline interpolation. (Chinese) **82g:65012**

secondary classifications:

Barrar, R. B. (*with* Loeb, Henry) Fundamental theorem of algebra for monosplines and related results. **(82j:41010)**
Behforooz, G. H. (*with* Papamichael, N.) End conditions for interpolatory quintic splines. **(82j:41012)**
Chatterjee, A. (*with* Dikshit, H. P.) Convergence of a class of cubic interpolatory splines. **(82e:41015)**
Dikshit, H. P. (*with* Powar, P.) On deficient cubic spline interpolation. **(82h:41014)**
See also **Chatterjee, A., (82e:41015)**
Fu, Qing Xiang Optimum cubic spline fitting with desired convexity and its algorithm. (Chinese) **(82a:41011)**

Granger, Jean-Michael Spline d'interpolation, commande optimale et filtrage. (English summary) **(82d:41010)**
Guo, Zhu Rui On a sort of interpolating spline. (Chinese. English summary) **(82e:41016)**
Jain, Padam Chand *See* **Lohar, B. L., (82d:65061)**
Kublašvili, M. D. Remark on a scheme for approximate calculation of singular integrals. (Russian) **(82m:65015)**
Ligun, A. A. (*with* Storčaĭ, V. F.) Best choice of nodes in the approximation of functions by local Hermite splines. (Russian) **(82c:41011)**
Lind, N. C. *See* **Siu, W. W. C.; et al., (82d:60032)**
Loeb, Henry *See* **Barrar, R. B., (82j:41010)**
Lohar, B. L. (*with* Jain, Padam Chand) Variable mesh cubic spline technique for N-wave solution of Burgers' equation. **(82d:65061)**
Marsden, M. J. Spline interpolation at knot averages on a two-sided geometric mesh. **(82m:41011)**
Mastro, R. A. (*with* Voss, David A.) A quintic spline collocation procedure for solving the Falkner-Skan boundary-layer equation. **(82c:76039)**
McConalogue, Denis J. Numerical treatment of convolution integrals involving distributions with densities having singularities at the origin. **(82f:65147)**
Merz, Gerhard Interpolation mit periodischen Spline-Funktionen. I, II. **(82b:41010)**
Müthei, Heinrich N. Zur numerischen Lösung gewöhnlicher Differentialgleichungen mit Splines in einem Sonderfall. (English summary) **(82e:65080)**
Nazarenko, N. A. Reconstruction of plane curves with the aid of parametric Hermitian splines. (Russian) **(82a:41012)**
Neuman, Edward Quadratic splines and histospline projections. **(82h:41017)**
Cubic splines with given values of the second derivatives at the knots. **(82f:41016)**
Moments and Fourier transforms of B-splines. **(82e:41017)**
Opfer, Gerhard (*with* Puri, Madan L.) Complex planar splines. **(82i:41014)**
Papamichael, N. *See* **Behforooz, G. H., (82j:41012)**
Powar, P. *See* **Dikshit, H. P., (82h:41014)**
Puri, Madan L. *See* **Opfer, Gerhard, (82i:41014)**
Romenskiĭ, V. P. The method of spline-collocation for the Poisson (high-accuracy scheme). (Russian) **(82e:65118)**
Sallam, S. On the stability of quasidouble step spline function approximations for solutions of initial value problems. **(82g:65043)**
Schreiber, Robert Finite element methods of high-order accuracy for singular two-point boundary value problems with nonsmooth solutions. **(82b:65139)**
Schumaker, Larry L. ★Spline functions: basic theory. **(82j:41001)**
Sengupta, S. S. *See* **Siu, W. W. C.; et al., (82d:60032)**
Siu, W. W. C. (*with* Sengupta, S. S.; Lind, N. C.) A linear programming formulation of the problem of moments. (German and Russian summaries) **(82d:60032)**
Storčaĭ, V. F. *See* **Ligun, A. A., (82c:41011)**
Tewarson, R. P. On the use of splines for the numerical solution of nonlinear two-point boundary value problems. **(82j:65058)**
Voss, David A. *See* **Mastro, R. A., (82c:76039)**
Weng, Zu Yin Optimal error bounds for derivatives of cubic interpolating splines with equidistant nodes. (Chinese. English summary) **(82a:41014)**
Werner, Helmut Neuere Entwicklungen auf dem Gebiete der nichtlinearen Splinefunktionen. **(82f:41021)**
The development of nonlinear splines and their applications. **(82e:41019)**
Spline functions and the numerical solution of differential equations. **(82b:65064)**
Xiong, Zhen Xiang Splines of $(2n+1)$th degree with coefficients expressed by even-order derivatives. (Chinese. English summary) **(82b:41013)**
Žanlav, T. Some estimates of the approximation of second derivatives by means of cubic interpolation splines. (Russian) **(82j:65011)**

65D10 Smoothing, curve fitting

Agee, William S. (*with* Turner, Robert H.; Dunn, Barbara A.) Iterated Schönberg approximation and its application. **82e:65013**
Baboolal, S. (*with* Watson, G. Alistair) Computational experience with an algorithm for discrete L_1 approximation. (German summary) **82k:65005**
Bloomfield, Peter (*with* Steiger, William) Least absolute deviations curve-fitting. **82f:65011**
Buttz, Donald L. Fitting an ellipse. **82h:65010**
Dunn, Barbara A. *See* **Agee, William S.; et al., 82e:65013**
Eichhorn, Heinrich (*with* Standish, E. Myles, Jr.) Remarks on nonstandard least-squares problems. **82f:65012**
Gallagher, Neal C. *See* **Wise, Gary L., 82j:65006**
Golub, Gene H. (*with* Van Loan, Charles) Total least squares. **82a:65013**
Handscomb, D. C. Turning corners with four-sided polynomial patches. **82e:65014**
Hanson, Richard J. (*with* Norris, Michael J.) Analysis of measurements based on the singular value decomposition. **82m:65011**
Huang, Zhi Yuan *See* **Xiong, Yi Qi; et al., 82f:65014**
Lindqvist, S. A new step-strategy for Marquardt's iterative nonlinear least squares algorithm. **82e:65015**
Locher, F. Interpolation on uniform meshes by the translates of one function and related attenuation factors. **82i:65008**
Lu, Jian Ke *See* **Xiong, Yi Qi; et al., 82f:65014**
McLaughlin, H. W. (*with* Zacharski, J. J.) Segmented approximation. **82e:65016**
Norris, Michael J. *See* **Hanson, Richard J., 82m:65011**
Ruhe, Axel Fitting empirical data by positive sums of exponentials. **82e:65017**
Sklar, Michael G. L_∞ norm estimation with linear restrictions on the parameters. **82f:65013**
Standish, E. Myles, Jr. *See* **Eichhorn, Heinrich, 82f:65012**
Steiger, William *See* **Bloomfield, Peter, 82f:65011**
Tjutjunnikov, P. L. Determination of the coefficients of the sum of exponents by the method of additional integral variables. (Russian) **82a:65014**
Turner, Robert H. *See* **Agee, William S.; et al., 82e:65013**
Utreras Diaz, Florencio I. Optimal smoothing of noisy data using spline functions. **82m:65012**
Van Loan, Charles *See* **Golub, Gene H., 82a:65013**
Vasilenko, V. A. (*with* Zjuzin, M. V.) Processing of experimental data with an application of averagings that preserve polynomial, trigonometric or exponential functions. (Russian) (*See* **82d:65003**)
Watson, G. Alistair *See* **Baboolal, S., 82k:65005**
Wise, Gary L. (*with* Gallagher, Neal C.) A novel approach for the computation of orthonormal polynomial expansions. **82j:65006**
Xiong, Yi Qi (*with* Lu, Jian Ke; Huang, Zhi Yuan; Yang, Wen Mao) On the mesh smoothing problem. (Chinese) **82f:65014**
Yang, Wen Mao *See* **Xiong, Yi Qi; et al., 82f:65014**
Zacharski, J. J. *See* **McLaughlin, H. W., 82e:65016**
Zjuzin, M. V. *See* **Vasilenko, V. A.,** (*See* **82d:65003**)

secondary classifications:

Fraser, W. (*with* Wolfe, Jerry M.) Conditions for a rational approximation to be locally best in the l_1 sense. **(82m:41013)**
Hosaka, Mamoru (*with* Kimura, Fumihiko) A theory and methods for three-dimensional free form shape construction. **(82b:53003)**
Jefferys, William H. On the method of least squares. II. **(82f:65146)**
Kawara, Yasushi Straight line fitting by minimizing the sum of absolute deviations. (Japanese. English summary) **(82c:62097)**
Kimura, Fumihiko *See* **Hosaka, Mamoru, (82b:53003)**
Nazarenko, N. A. Approximation of plane curves by parametric Hermitian splines. (Russian) **(82e:41043)**
Popov, B. A. Approximation splines with a given error. (Russian) **(82e:65012)**
Reiss, Edward L. A new asymptotic method for jump phenomena. **(82b:58031)**
Rokne, J. Polynomial least square interval approximation. (German summary) **(82m:41007)**
Wolfe, Jerry M. *See* **Fraser, W., (82m:41013)**

65D15 Algorithms for functional approximation

Anderson, Donald G. M. *See* **Schulten, Zan; et al., 82i:65012**
Bacopoulos, Alexis *See* **Grimard, Irene, 82g:65013**
Bultheel, A. (*with* Wuytack, L.) Stability of numerical methods for computing Padé approximants. **82e:65018**
Division algorithms for continued fractions and the Padé table. **82h:65011**
Burley, S. K. (*with* John, S. O.; Nuttall, J.) Vector orthogonal polynomials. **82h:65012**
Chang, Geng Zhe (*with* Wu, Jun Heng) On mathematical foundations of Bézier's method. (Chinese. English summary) **82j:65007**
Chen, Chih Fan (*with* Leung, K. K.) A new look at partial fraction expansion from a high-level language viewpoint. **82f:65015**
Chisholm, J. S. R. Multivariate approximants with branch cuts. **82e:65019**
Dem'janovič, Ju. K. Successive approximation by spaces of local functions. (Russian) **82i:65009**
Dunham, Charles B. Stability of differential correction for rational Chebyshev approximation. **82a:65015**
Feuer, Gábor A numerical method for the best approximation of a convex function. (Hungarian. English summary) **82i:65010**
Fischer, Jürgen An algorithm for discrete linear L_p approximation. **82k:65006**
Geddes, K. O. Block structure in the Chebyshev-Padé table. **82h:65013**
Glashoff, Klaus (*with* Roleff, K.) A new method for Chebyshev approximation of complex-valued functions. **82c:65011**
Gordon, R. G. *See* **Schulten, Zan; et al., 82i:65012**
Grimard, Irene (*with* Bacopoulos, Alexis) Computation of best simultaneous approximations with a singularity. **82g:65013**
He, Tian Xiao *See* **Zhu, Gong Qin, 82k:65009**
Janenko, N. N. *See* **Urusov, A. I.; et al., 82i:65013**
Janovič, L. A. *See* **Kos'jančuk, V. V., 82h:65014**
John, S. O. *See* **Burley, S. K.; et al., 82h:65012**
Kaufman, Edwin H., Jr. (*with* Leeming, David J.; Taylor, Gerald D.) A combined Remes-differential correction algorithm for rational approximation: experimental results. **82f:65016**
(*with* Leeming, David J.; Taylor, Gerald D.) Uniform rational approximation by differential correction and Remes-differential correction. **82i:65011**
Kos'jančuk, V. V. (*with* Janovič, L. A.) Approximate formulas of third degree accuracy for calculating functional integrals with respect to a measure given by a characteristic functional. (Russian. English summary) **82h:65014**
Kutas, Tibor A new method for solving the nonlinear curve fitting problem. (Hungarian. English summary) **82k:65007**
Lambert, Joseph M. An alternative computational method for the approximation of random functions. **82b:65008**
Leeming, David J. *See* **Kaufman, Edwin H., Jr.; et al., 82f:65016** *and* **82i:65011**
Leung, K. K. *See* **Chen, Chih Fan, 82f:65015**
Luke, Yudell L. *See* **Ting, Bing Yuan, 82f:65018**
Mihlin, S. G. Constant multipliers in the estimates of the error of the variational difference approximation. (Russian) **82j:65008**
Nuttall, J. *See* **Burley, S. K.; et al., 82h:65012**
Popov, B. A. Uniform splines for approximation of continuous functions. (Russian) **82f:65017**
Rankin, Donald W. Methods for approximating mathematical functions. **82h:65015**
Roleff, K. *See* **Glashoff, Klaus, 82c:65011**
Schulten, Zan (*with* Gordon, R. G.; Anderson, Donald G. M.) A numerical algorithm for the evaluation of Weber parabolic cylinder functions $U(a,x)$, $V(a,x)$, and $W(a,\pm x)$. **82i:65012**
Šokin, Ju. I. *See* **Urusov, A. I.; et al., 82i:65013**
Sun, Jia Chang (*with* Zheng, Quan Lin) On arc and bi-arc curve approximation. (Chinese. English summary) **82h:65008**

Taylor, Gerald D. *See* **Kaufman, Edwin H., Jr.; et al., 82f:65016** *and* **82i:65011**
Ting, Bing Yuan (*with* Luke, Yudell L.) Conversion of polynomials between different polynomial bases. **82f:65018**
Todd, John Some applications of elliptic functions and integrals. **82a:65016**
Urusov, A. I. (*with* Šokin, Ju. I.; Janenko, N. N.) Qualitative investigation of difference schemes by the differential approximation method. (Russian) **82i:65013**
Wahba, Grace Spline bases, regularization, and generalized cross validation for solving approximation problems with large quantities of noisy data. **82b:65009**
Wu, Jun Heng *See* **Chang, Geng Zhe, 82j:65007**
Wuytack, L. *See* **Bultheel, A., 82e:65018**
Zheng, Quan Lin *See* **Sun, Jia Chang, 82k:65008**
Zhu, Gong Qin (*with* He, Tian Xiao) A method of calculation for the n-point sectional Padè approximant. (Chinese. English summary) **82k:65009**

secondary classifications:

Baburmuz, A. A. (*with* Loly, P. D.) Lattice Green's functions for a linear chain with next nearest neighbor interactions. **(82e:82021)**
Barnsley, M. F. (*with* Turchetti, G.) Bounding methods in nuclear physics. **(82j:81062)**
Batut, Christian (*with* Olivier, Michel) Sur l'accélération de la convergence de certaines fractions continues. **(82b:10041)**
Bultheel, A. Recursive algorithms for nonnormal Padè tables. **(82e:41024)**
Collins, William D. An extension of the method of the hypercircle to linear operator problems with unilateral constraints. **(82d:41022)**
Dey, Suhrit K. PIS for n-coupled nonlinear systems. **(82g:65028)**
Dunham, Charles B. Discrete Chebyshev approximation: alternation and the Remez algorithm. **(82i:41031)**
Chebyshev approximation with nonnegative derivative. **(82g:41016)**
(*with* Williams, Jack) Rate of convergence of discretization in Chebyshev approximation. **(82f:41024)**
Gilewicz, Jacek ★Approximants de Padè. (French) [Padè approximants] **(82c:41015)**
Kiouseltidis, J. B. Optimal segmented polynomial L_∞-approximations. (German summary) **(82h:41006)**
Lambin, Ph. (*with* Vigneron, J. P.) Improved continued fraction treatment of the one-dimensional scattering problem. **(82g:81093)**
Levin, David On accelerating the convergence of infinite double series and integrals. **(82b:65003)**
Light, William A. Some optimality conditions for Chebyshev expansions. **(82d:41041)**
Loly, P. D. *See* **Baburmuz, A. A., (82e:82021)**
Mason, J. C. Near-best multivariate approximation by Fourier series, Chebyshev series and Chebyshev interpolation. **(82a:41031)**
Olivier, Michel *See* **Batut, Christian, (82b:10041)**
Olver, Frank W. J. Unrestricted algorithms for generating elementary functions. **(82h:65034)**
Price, Thomas E., Jr. The numerical approximation of analytic functions in the complex domain. **(82a:65024)**
Scherer, Karl On optimal global error bounds obtained by scaled local error estimates. **(82e:65053)**
Swetits, John J. (*with* Wood, Bruce) A note on the degree of approximation with an optimal, discrete polynomial. **(82a:41020)**
Tihonov, V. I. ★Umkehraufgaben und Datenbewertung. (German) [Inverse problems and data evaluation] **(82k:65088)**
Turchetti, G. *See* **Barnsley, M. F., (82j:81062)**
Vigneron, J. P. *See* **Lambin, Ph., (82g:81093)**
Williams, Jack *See* **Dunham, Charles B., (82f:41024)**
Wood, Bruce *See* **Swetits, John J., (82a:41020)**

65D20 Computation of special functions, construction of tables

Campbell, J. B. On Temme's algorithm for the modified Bessel function of the third kind. **82d:65019**
Ditkin, V. A. (*with* Karpov, K. A.; Kerimov, M. K.) On the computation of special functions. (Russian) **82b:65010**
Gatto, M. A. (*with* Seery, J. B.) Numerical evaluation of the modified Bessel functions I and K. **82d:65020**
Karpov, K. A. *See* **Ditkin, V. A.; et al., 82b:65010**
Kerimov, M. K. *See* **Ditkin, V. A.; et al., 82b:65010**
Kiro, S. M. Calculation of Čaplygin functions using Čebyšev polynomials. (Russian) (*See* **82g:65004**)
Martins, Pedro de A. P. Spherical Coulomb functions: recurrence relations and continued fractions. **82g:65014**
Miel, George J. Evaluation of complex logarithms and related functions. **82k:65010**
Petek, Peter Iterative calculation of square roots. (Slovenian. English summary) **82m:65013**
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Boyd, David W. Reciprocal polynomials having small measure. **(82a:30005)**
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Gautschi, Walter Minimal solutions of three-term recurrence relations and orthogonal polynomials. **(82m:33006)**
Ling, Chih Bing (*with* Wu, Ming Jing) Evaluation of integrals of Howland type involving a Bessel function. **(82m:65003)**
Mancini, Roberto Claudio *See* **Bañuelos, Alicia; et al., (82e:41045)**
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(Wrigge, Staffan) *See* **Fransén, Arne, (82m:65002)**
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65D25 Numerical differentiation

Baart, M. L. Computational experience with the spectral smoothing method for differentiating noisy data. **82h:65016**
Belaja, N. I. An algorithm for constructing an optimally exact derivative of a function in the class $C_{2,L,N}$. (Russian) **82j:65009**
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Masaitis, Česlovas (*with* Francis, George C.) Differentiation of tabular data. **82a:65017**
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Haverkamp, Richard Approximationsfehler der Ableitungen von Interpolationspolynomen. (English summary) **(82f:41013)**
Osgood, Charles F. Approximating convolution products better than the DFT while keeping the FFT. **(82i:65083)**

65D30 Numerical integration

Allasia, G. (*with* Giordano, C.) Representation and estimation of the remainder in generalized numerical integration formulas. (Italian. English summary) **82m:65014**
Amos, Donald E. Computation of exponential integrals. **82b:65011**
Beighton, S. *See* **Noble, B., 82d:65028**
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Giordano, C. *See* **Allasia, G., 82m:65014**
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Numerical Integration and Related Topics ★Numerical integration and related topics. **(82c:65002)**

65D32 Quadrature and cubature formulas

Acharya, B. P. (*with* Das, R. N.) On numerical integration of analytic functions of more than one variable. **82m:65018**

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Über die Gaußsche Methode zur angenäherten Berechnung von Integralen. (English summary) **82a:65021**

Haber, Seymour A number-theoretic problem in numerical approximation of integrals. **82e:65027**

Israilov, M. I. *See* **Džurakulov, R., 82b:65014**

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Šeško, M. A. (*with* Jakimenko, T. S.) The convergence of a quadrature process for a singular integral with power-logarithmic singularity. (Russian) **82d:65032**

Shizgal, B. A Gaussian quadrature procedure for use in the solution of the Boltzmann equation and related problems. **82h:65021**

Sidi, Avram Numerical quadrature rules for some infinite range integrals. **82m:65022**

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Umarhanov, I. Description of a latticed cubature formula for multidimensional domains with smooth boundaries. (Russian) **82a:65022**

Vojtišek, L. V. *See* **Blinov, N. I., 82e:65026**

Wang, Xing Hua Accurate estimates of remainders of quadrature formulas. (Chinese. English summary) **82h:65022**

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Xu, Guang Shan *See* **Zhang, Yong Xiao; et al., 82i:65018**

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Vaskevič, V. L. On the convergence of Euler-Maclaurin quadrature formulas on a class of smooth functions. (Russian) **(82m:41028)**
Wilhelmsen, D. *See* **Lether, Frank G.; et al., (82g:41029)**
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65D99 None of the above, but in this section

Haug, Edward J. (*with* Kwak, Byung Man) A numerical method for parametric optimal design. (Romanian summary) **82c:65013**
Kwak, Byung Man *See* **Haug, Edward J., 82c:65013**
Meek, D. S. What to do when the Peano kernel changes sign. **82a:65023**
Qian, Kang *See* **Qian, Wen Han, 82h:65023**
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65E05 Numerical methods in complex analysis (potential theory, etc.) {For numerical methods in conformal mapping, see 30C30.}

Coleman, R. M. *See* **Haussling, H. J., 82m:65026**
Gargantini, Irene A note on the critical points of a polynomial. **82j:65015**
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65Fxx Numerical linear algebra

(Björck, Åke) *See* **Large scale matrix problems, 82j:65017**
(Plemmons, Robert J.) *See* **Large scale matrix problems, 82j:65017**
(Schneider, Hans) *See* **Large scale matrix problems, 82j:65017**
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Faddeeva, V. N. *See* **Faddeev, D. K., (82e:01073)**

65F05 Direct methods for linear systems and matrix inversion

Abaffy, József A direct method class for the general solution of systems of linear equations. (Hungarian. English summary) **82h:65016**
Anand, Indu Mati Numerical stability of nested dissection orderings. **82c:65014**
Bakule, L. On a new hierarchical approach to the large-scale system solution. (Russian summary) **82m:65027**
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Ye, Bi Quan (*with* Feng, Zhen Xing; Li, Mao Xiang; Shen, Cheng Wu) A direct method of decomposition by segments and pieces for the solution of large systems (sets) of linear equations and its coupling with the idea of substructures. (Chinese. English summary) **82i:65023**

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Lenin, A. I. (*with* Makarov, O. M.) Accelerated algorithms for multiplication of a transposed vector by matrices $\|_{OG}^{GO}\tau\|$ and $\|GG^{\tau}\|$. (Russian) **(82e:65045)**

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(*with* Chang, A. F.) Corrigendum to: "A numerical method for the solution of the double eigenvalue problem". **82e:65036b**

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Cao, Zhi Hao (*with* Zhang, Feng Gang) Direct methods for ordering eigenvalues of a real matrix. (Chinese. English summary) **(82h:15009)**

Denman, Eugene D. (*with* Leyva-Ramos, J.) Spectral decomposition of a matrix using the generalized sign matrix. **(82m:15024)**

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McCormick, Stephen F. A mesh refinement method for $Ax=\lambda Bx$. **(82d:65070)**

Morikawa, Tetsuo (*with* I'Haya, Y. J.) Construction of orthonormal vector sets for atoms and molecules by means of recursive variation. **(82h:81153)**

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Powers, David L. *See* **Al-Nasr, Nazar; et al.**, **(82e:93068)**

Pudil, Pavel (*with* Bláha, Svatopluk) Evaluation of the effectiveness of features selected by discriminant analysis methods. **(82k:68055)**

Pustyl'nikov, L. D. Rapid calculations in certain problems of linear algebra connected with Toeplitz and Hankel matrices. (Russian) **(82a:65026)**

Rabson, G. *See* **Lovass-Nagy, Victor; et al.**, **(82c:93012)**

Stamnes, Knut (*with* Swanson, Roy A.) A new look at the discrete ordinate method for radiative transfer calculations in anisotropically scattering atmospheres. **(82g:85010)**

Sussman-Fort, Stephen E. Inductor-capacitor one-ports and inverse eigenvalue problems. **(82f:94023)**

Swanson, Roy A. *See* **Stamnes, Knut**, **(82g:85010)**

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Valeev, K. G. (*with* Finin, G. S.) On the splitting of a matrix spectrum. (Russian. English summary) **(82m:15016)**

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Neumann, Michael A combined direct-iterative approach for solving large scale singular and rectangular consistent systems of linear equations. **82f:65041**

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Baróthy, B. On the stability of properties of the Moore-Penrose matrix inverse. **(82e:15001)**

Berg, Lothar Verallgemeinerte Inversen nilpotenter Matrizen. [Generalized inverses of nilpotent matrices] **(82j:15003)**

Galba, É. F. *See* **Molčanov, I. M.**, **(82m:65111)**

Kühlewind, O. Rang-1-Änderungen bei verallgemeinerten Inversen. [Rank-1 changes in generalized inverses] **(82m:15007)**

Molčanov, I. M. (*with* Galba, É. F.) Generalized difference Green functions and elements of pseudoinverse matrices. (Russian) **(82m:65111)**

65F25 Orthogonalization

De Cesare, N. *See* **Rosato, E.; et al., 82h:65031**
Gander, Walter Least squares with a quadratic constraint. **82c:65026**
Perillo, E. *See* **Rosato, E.; et al., 82h:65031**
Rosato, E. (*with* Vigilante, M.; De Cesare, N.; Perillo, E.; Spadaccini, G.) Weighted fit by orthonormal polynomials. **82h:65031**
Spadaccini, G. *See* **Rosato, E.; et al., 82h:65031**
Vigilante, M. *See* **Rosato, E.; et al., 82h:65031**

65F30 Other matrix algorithms

Aliev, F. A. (*with* Larin, V. B.) Solution of Riccati's discrete algebraic equation. (Russian. Azerbaijani and English summaries) **82e:65042**
The Bass correlation for a solution of the discrete algebraic Riccati equation. (Russian. Azerbaijani and English summaries) **82g:65024**
Blalock, Sybil A. *See* **Serbin, Steven M., 82b:65031**
Bunse, Wolfgang A class of diagonal transformation methods for the computation of the spectral radius of a nonnegative irreducible matrix. **82e:65043**
Burmeister, W. Optimal interval enclosing of certain sets of matrices, with application to monotone enclosing of square roots. (German summary) **82e:65044**
Burrus, W. R. (*with* Rust, B. W.; Cope, J. E.) Constrained interval estimation for linear models with ill-conditioned equations. **82a:65029**
Cope, J. E. *See* **Burrus, W. R.; et al., 82a:65029**
Denman, Eugene D. Roots of real matrices. **82f:65042**
Dyer, M. E. (*with* Proll, L. G.) Eliminating extraneous edges in Greenberg's algorithm. **82h:65032**
Ferguson, Warren E., Jr. The construction of Jacobi and periodic Jacobi matrices with prescribed spectra. **82c:65027**
Kuznecov, Ju. A. (*with* Macokin, A. M.) Partial solution of systems of linear algebraic equations. (Russian) **82g:65025**
Larin, V. B. *See* **Aliev, F. A., 82e:65042**
Lenin, A. I. (*with* Makarov, O. M.) Accelerated algorithms for multiplication of a transposed vector by matrices $\|\begin{smallmatrix} G \\ 0 \; G^T \end{smallmatrix}\|$ and $\|GG^T\|$. (Russian) **82e:65045**
Macokin, A. M. *See* **Kuznecov, Ju. A., 82g:65025**
Makarov, O. M. *See* **Lenin, A. I., 82e:65045**
Nuding, E. Schrankentreue Berechnung der Exponentialfunktion wesentlich-nichtnegativer Matrizen. (English summary) **82f:65043**
Patel, Rajnikant V. Computation of matrix fraction descriptions of linear time-invariant systems. **82b:65030**
Proll, L. G. *See* **Dyer, M. E., 82h:65032**
Rust, B. W. *See* **Burrus, W. R.; et al., 82a:65029**
Serbin, Steven M. (*with* Blalock, Sybil A.) An algorithm for computing the matrix cosine. **82b:65031**
Shen, Qi Jun Faster algorithms of plane rotation. (Chinese) **82i:65027**
Toint, Ph. L. A sparse quasi-Newton update derived variationally with a nondiagonally weighted Frobenius norm. **82i:65028**
Tsao, Nai Kuan The numerical instability of Bini's algorithm. **82i:65029**
van der Walt, Andries P. J. Difficult words. (*See* **82i:16002**)

secondary classifications:

Aspvall, Bengt (*with* Shiloach, Yossi) A polynomial time algorithm for solving systems of linear inequalities with two variables per inequality. **(82a:68052)**
Bart, H. (*with* Gohberg, Israel; Kaashoek, M. A.; Van Dooren, Paul M.) Factorizations of transfer functions. **(82e:47024)**
Bini, Dario (*with* Lotti, Grazia; Romani, Francesco) Approximate solutions for the bilinear form computational problem. **(82a:68065)**
Bohte, Zvonimir Calculation of the derivative of the determinant. (Slovenian. English summary) **(82d:65041)**
de Boor, Carl What is the main diagonal of a bi-infinite band matrix? **(82e:41014)**
Boriotti, J. R. *See* **Saha, R. K., (82c:65029)**
Călin, Tatiana Algorithm for the decomposition of an angular-shaped matrix. (French and Russian summaries) **(82d:90075)**
Colbourn, Charles J. (*with* McKay, Brendan D.) A correction to Colbourn's paper on the complexity of matrix symmetrizability: "The complexity of symmetrizing matrices" [Inform. Process. Lett. **9** (1979), no. 3, 108–109; MR 81a:68045]. **(82a:68069)**
Davis, George J. Numerical solution of a quadratic matrix equation. **(82f:65036)**
Dewilde, Patrick *See* **Van Dooren, Paul M., (82d:94064)**
Fischer, Michael J. (*with* Paterson, Michael S.) The fast skew-closure algorithm. **(82m:68065a)**
Gohberg, Israel *See* **Bart, H.; et al., (82e:47024)**
Hanson, Richard J. (*with* Norris, Michael J.) Analysis of measurements based on the singular value decomposition. **(82m:65011)**
Kaashoek, M. A. *See* **Bart, H.; et al., (82e:47024)**
Labarthe, J.-J. Graphical method for computing the determinant and inverse of a matrix. Generating functions for harmonic oscillator integrals. **(82k:05096)**
Lotti, Grazia *See* **Bini, Dario; et al., (82a:68065)**
McKay, Brendan D. *See* **Colbourn, Charles J., (82a:68069)**
Norris, Michael J. *See* **Hanson, Richard J., (82m:65011)**
O'Leary, Dianne Prost A generalized conjugate gradient algorithm for solving a class of quadratic programming problems. **(82e:90076)**
Paterson, Michael S. *See* **Fischer, Michael J., (82m:68065a)**
Romani, Francesco *See* **Bini, Dario; et al., (82a:68065)**
Saha, R. K. (*with* Boriotti, J. R.) Truncation and round-off errors in computation of matrix exponentials. **(82c:65029)**
Schönhage, A. Partial and total matrix multiplication. **(82h:68070)**
Shiloach, Yossi *See* **Aspvall, Bengt, (82a:68052)**
Van Dooren, Paul M. (*with* Dewilde, Patrick) Minimal cascade factorization of real and complex rational transfer matrices. **(82d:94064)**
See also **Bart, H.; et al., (82e:47024)**
Varga, Gy. Nonzero eigenvalues of singular matrices, Jordan normal form of matrices. **(82h:65027)**
Watt, A. *See* **Whitehead, R. R., (82i:15031)**
Whitehead, R. R. (*with* Watt, A.) On the avoidance of cancellations in the matrix moment problem. **(82i:15031)**

65F35 Matrix norms, conditioning, scaling [See also 15A12, 15A60.]

Berman, Abraham (*with* Parlett, B. N.; Plemmons, Robert J.) Diagonal scaling to an orthogonal matrix. **82d:65040**
Grimes, Roger G. (*with* Lewis, John Gregg) Condition number estimation for sparse matrices. **82h:65019**
Kevorkian, Aram K. Erratum: "The principal maxmin matrix transversal strategy" [Math. Oper. Res. 4 (1979), no. 3, 274–290; MR 80f:65049]. **82a:65030**
Lewis, John Gregg *See* **Grimes, Roger G., 82h:65019**
Parlett, B. N. *See* **Berman, Abraham; et al., 82d:65040**
Plemmons, Robert J. *See* **Berman, Abraham; et al., 82d:65040**
Zhu, Ci You The preconditioning method for solving ill-posed linear equations. (Chinese. English summary) **82m:65035**

secondary classifications:

Elfving, Tommy On some methods for entropy maximization and matrix scaling. **(82c:65039)**
Longley, James Wildon Least squares computations and the condition of the matrix. **(82m:62152)**
O'Leary, Dianne Prost Estimating matrix condition numbers. **(82c:15006)**

65F40 Determinants

Bohte, Zvonimir Calculation of the derivative of the determinant. (Slovenian. English summary) **82d:65041**
Halada, L. A recursive computation of the determinant of a bandtriangular matrix. **82d:65042**

secondary classifications:

Wagenführer, E. Die Determinantenmethode zur Berechnung des charakteristischen Exponenten der endlichen Hillschen Differentialgleichung. (English summary) **(82e:34048)**

65F99 None of the above, but in this section

Aliev, F. A. (*with* Larin, V. B.) Numerical solution of a discrete algebraic Riccati equation. (Russian. Azerbaijani and English summaries) **82f:65044**
Bhat, Kabekode V. S. An algorithm for matrix symmetrization. **82m:65036**
Deift, P. (*with* Trubowitz, E.) A continuum limit of matrix inverse problems. **82m:65037**
Hallum, C. R. *See* **McMath, John S.; et al., 82d:65043**
Holt, J. N. *See* **O'Brien, D. M., 82h:65033**
Larin, V. B. *See* **Aliev, F. A., 82f:65044**
McMath, John S. (*with* Sims, S. E.; Hallum, C. R.) A comparison of various derivatives for matrix-valued functions. **82d:65043**
(*with* Sims, S. E.) Mean value theorems for a matrix valued derivative. **82j:65025**
O'Brien, D. M. (*with* Holt, J. N.) The extension of generalized cross-validation to a multiparameter class of estimators. **82h:65033**
O'Leary, Dianne Prost (*with* Simmons, John A.) A bidiagonalization-regularization procedure for large scale discretizations of ill-posed problems. **82k:65020**
Pan, V. Ya. Trilinear aggregating with implicit canceling for a new acceleration of matrix multiplication. **82m:65038**
Santoro, Nicola Four $O(n^{**}2)$ multiplication methods for sparse and dense Boolean matrices. **82m:65039**
Schaback, Robert Eine rundungsgenaue Formel zur maschinellen Berechnung der Prager-Oettli-Schranke. (English summary) **82f:65045**
Simmons, John A. *See* **O'Leary, Dianne Prost, 82k:65020**
Sims, S. E. *See* **McMath, John S.; et al., 82d:65043** *and* **82j:65025**
Trubowitz, E. *See* **Deift, P., 82m:65037**
Tuzik, A. I. Infinite systems of linear algebraic equations with coefficients of power growth. (Russian. English summary) **82e:65046**

secondary classifications:

Aspvall, Bengt (*with* Shiloach, Yossi) A polynomial time algorithm for solving systems of linear inequalities with two variables per inequality. (*See* **82a:68004**)
Brjuhanov, A. K. Investigation and solution of infinite systems of linear equations. (Russian) **(82d:47017)**
Bulgakov, A. Ja. *See* **Godunov, S. K., (82i:34049)**
Clark, R. W. (*with* James, R. M.) New approach to the solution of large, full matrix equations. **(82h:76008)**
Godunov, S. K. (*with* Bulgakov, A. Ja.) Stability of stable matrices. (Russian) **(82i:34049)**
James, R. M. *See* **Clark, R. W., (82h:76008)**
Ledjankin, Ju. Ja. ★Вопросы создания спецпроцессоров, проблемно-ориентированных на решение задач математической физики. (Russian) [Questions of devising special processors oriented towards the solution of problems of mathematical physics] **(82g:68009)**
Meinardus, Günter On the sequence of the powers of a given matrix. **(82j:15022)**
Pippenger, Nicholas Algebraic complexity theory. **(82k:68020)**
Shiloach, Yossi *See* **Aspvall, Bengt,** (*See* **82a:68004**)
Young, N. J. Matrices which maximise any analytic function. **(82b:15016)**

65Gxx Error analysis

secondary classifications:

Gihman, Ĭ. Ĭ. (*with* Skorohod, A. V.) ★The theory of stochastic processes. I. **(82k:60005)**
(Kotz, Samuel) *See* **Gihman, Ĭ. Ĭ.; et al., (82k:60005)**
Skorohod, A. V. *See* **Gihman, Ĭ. Ĭ., (82k:60005)**

65G05 Roundoff error

Albrecht, R. F. Roundings and approximations in ordered sets. **82b:65032**
Bois, Pierre (*with* Vignes, Jean) Évaluation de la précision dans le calcul de la convolution et de la corrélation. (English summary) **82f:65046**
Bollen, Joseph Antonius Maria ★Round-off error analysis of descent methods for solving linear equations. **82c:65028**
Boriotti, J. R. *See* **Saha, R. K., 82c:65029**
Klatte, R. (*with* Ullrich, Ch.) On conversions between screens. (German summary) **82h:65034**
Miller, Webb (*with* Wrathall, Celia) ★Software for roundoff analysis of matrix algorithms. **82e:65047**
Oberaigner, W. Algorithms for multiplication with given precision. **82b:65033**
Olver, Frank W. J. Unrestricted algorithms for generating elementary functions. **82h:65034**
Saha, R. K. (*with* Boriotti, J. R.) Truncation and round-off errors in computation of matrix exponentials. **82c:65029**
Ukkonen, Esko On the calculation of the effects of roundoff errors. **82i:65030**
Ullrich, Ch. *See* **Klatte, R., 82h:65034**
Vignes, Jean *See* **Bois, Pierre, 82f:65046**
Wrathall, Celia *See* **Miller, Webb, 82e:65047**

secondary classifications:

Basombrío, Fernando G. *See* **Pissanetzky, Sergio, (82k:65058)**
Cuyt, Annie A. M. Numerical stability of the Halley-iteration for the solution of a system of nonlinear equations. **(82m:65050)**
Feilmeier, M. (*with* Segerer, G.) Numerical stability in parallel evaluation of arithmetic expressions. (*See* **82k:68003**)
Heise, Ulrich Comparison of round-off errors in integral equation formulations of elastostatical boundary value problems. **(82k:65082)**
Pissanetzky, Sergio (*with* Basombrío, Fernando G.) On the numerical errors in one-step algorithms for time dependent problems. **(82k:65058)**
Pogosjan, È. M. Training as a variety of induction inference. **(82j:68091)**
Razumovskiĭ, S. N. A system for synthesis of algorithms ensuring a specified accuracy of computations. **(82m:68014)**
Segerer, G. *See* **Feilmeier, M.,** (*See* **82k:68003**)
Stewart, G. W. The behavior of a multiplicity independent root-finding scheme in the presence of error. **(82b:65043)**

65G10 Interval and finite arithmetic

Akušskiĭ, I. Ja. (*with* Burcev, V. M.; Pak, I. T.) Algorithms for multiplication using a kernel characteristic. (Russian) **82e:65048**
Alefeld, G. Bounding the slope of polynomial operators and some applications. (German summary) **82f:65047**
Appelt, W. Ein Abbruchkriterium für das intervallarithmetische Gesamt- und Einzelschrittverfahren. (English summary) **82f:65048**
Bauch, Hartmut On the iterative inclusion of solutions in initial value problems for ordinary differential equations. (German summary) **82f:65049**
On the iterative inclusion of solutions in characteristic initial value problems with hyperbolic differential equation $z_{st}=f(s,t,z)$. (German summary) **82e:65049**
Zur intervallanalytischen Lösung von Differentialgleichungen mit gestörten Anfangsbedingungen. [On the interval-analytic solution of differential equations with disturbed initial conditions] **82m:65040**
Burcev, V. M. *See* **Akušskiĭ, I. Ja.; et al., 82e:65048**
Caprani, Ole (*with* Madsen, Kaj; Rall, Louis B.) Integration of interval functions. **82e:65050**
Datta, Nanigopal *See* **Roy, Subir, 82k:65022**
Dempster, M. A. H. (*with* Papagaki-Papoulias, A.) Computational experience with an approximate method for the distribution problem. **82b:65035**
Dimitrova, Neli Über die Distributivgesetze der erweiterten Intervallarithmetik. (English summary) **82e:65051**
Fujii, Y. *See* **Ichida, K., 82f:65050**
Gardeñes, E. (*with* Trepat, A.) Fundamentals of SIGLA, an interval computing system over the completed set of intervals. (German summary) **82h:65035**
Ginsberg, Myron Monitoring floating-point error propagation in scientific computation. **82a:65031**
Gupta, D. K. Interval inclusion of fixed points. **82m:65041**
Hansen, Eldon (*with* Sengupta, Saumyendra) Bounding solutions of systems of equations using interval analysis. **82h:65036**
Ichida, K. (*with* Fujii, Y.) An interval arithmetic method for global optimization. (German summary) **82f:65050**
Juldašev, Z. H. Correction of interval boundaries in machine interval arithmetic with inclusion of initial operands. (Russian) **82k:65021**
Kaucher, E. Interval analysis in the extended interval space $\mathbb{IR}$. **82a:65032**
Klatte, R. (*with* Ullrich, Ch.) Complex sector arithmetic. (German summary) **82f:65051**
Kornerup, P. *See* **Matula, D. W., 82b:65036**
Kornoušenko, E. K. Interval coordinatewise estimates for the set of accessible states of a linear stationary system. [. **82i:65031**
Krawczyk, R. Interval extensions and interval iterations. (German summary) **82f:65052**
Madsen, Kaj *See* **Caprani, Ole; et al., 82e:65050**
Manteuffel, Thomas A. An interval analysis approach to rank determination in linear least squares problems. **82m:65042**
Marčenko, L. V. *See* **Nazarenko, T. I., 82a:65034**
Markov, S. M. Some applications of extended interval arithmetic to interval iterations. **82a:65033**
Matula, D. W. (*with* Kornerup, P.) Foundations of finite precision rational arithmetic. **82b:65036**
Nazarenko, T. I. (*with* Marčenko, L. V.) Some experiments on the application of interval analysis to the solution of systems of ordinary differential equations with linear boundary conditions. (Russian) **82a:65034**
Nickel, Karl L. Arithmetic of complex sets. (German summary) **82j:65026**
Oelschlägel, D. (*with* Süsse, H.) Optimierung mit Hilfe des Intervall-Newton-Verfahrens. (English and Russian summaries) [Optimization by means of the interval Newton method] **82m:65043**
Pak, I. T. *See* **Akušskiĭ, I. Ja.; et al., 82e:65048**
Papagaki-Papoulias, A. *See* **Dempster, M. A. H., 82b:65035**
Qi, Li Qun Interval boxes of solutions of nonlinear systems. (German summary) **82m:65044**
Raith, M. Existence and uniqueness of inclusion isotonic centered ball extensions. (German summary) **82f:65053**
Rall, Louis B. Interval analysis: a new tool for applied mathematics. (*See* **82k:00010**)
See also **Caprani, Ole; et al., 82e:65050**
Ratschek, H. (*with* Schröder, Gunnar) Centered forms for functions in several variables. **82m:65045**
Reichmann, K. Abbruch beim Intervall-Gauß-Algorithmus. (English summary) **82f:65054**
Roy, Subir (*with* Datta, Nanigopal) Interval arithmetic for two-point boundary value problems with mixed boundary conditions. **82k:65022**
Schröder, Gunnar Bemerkung zur Differentiation von intervallwertigen Funktionen. (English summary) **82f:65055**
See also **Ratschek, H., 82m:65045**
Sengupta, Saumyendra *See* **Hansen, Eldon, 82h:65036**
Süsse, H. *See* **Oelschlägel, D., 82m:65043**
Trepat, A. *See* **Gardeñes, E., 82h:65035**
Ullrich, Ch. *See* **Klatte, R., 82f:65051**
Wolff von Gudenberg, J. Determination of minimum sets of the set of zeros of a function. (German summary) **82h:65037**

secondary classifications:

Akritas, Alkiviadis G. The fastest exact algorithms for the isolation of the real roots of a polynomial equation. (German summary) **(82e:65054)**
Egerland, Walter O. Radix 65/39, a root searching algorithm for analytic equations. **(82e:65055)**
Gargantini, Irene Parallel square-root iterations for multiple roots. **(82e:65056)**
Larkin, F. M. A modification of the secant rule derived from a maximum likelihood principle. **(82b:65040)**
Nuding, E. Schrankentreue Berechnung der Exponentialfunktion wesentlich-nichtnegativer Matrizen. (English summary) **(82f:65043)**
Petković, Miodrag S. On a generalisation of the root iterations for polynomial complex zeros in circular interval arithmetic. (German summary) **(82g:30068)**
Scheu, Günter Optimale, beidseitig monotone bzw. alternierende Iterationsverfahren mit überlinearer Konvergenz. **(82b:65041)**

65G99 None of the above, but in this section

Drewniak, Józef (*with* Stolarczyk, Maria) Number of iterative steps in the interval. (Polish summary) **82k:65023**
Rheinboldt, Werner C. On a theory of mesh-refinement processes. **82e:65052**
Scherer, Karl On optimal global error bounds obtained by scaled local error estimates. **82e:65053**
Stolarczyk, Maria *See* **Drewniak, Józef, 82k:65023**
Stummel, F. Perturbation theory for evaluation algorithms of arithmetic expressions. **82i:65032**
Zadunaisky, Pedro E. On the implementation of a method for the estimation of global errors. (*See* **82b:65074**)

secondary classifications:

Linkwitz, K. Least-squares methods as a tool to calculate and optimize the design of prestressed cable nets and hanging nets. **(82f:51002)**
Linnainmaa, Seppo Software for doubled-precision floating-point computations. **(82h:68041)**

65Hxx Nonlinear algebraic or transcendental equations

65H05 Single equations

Akritas, Alkiviadis G. The fastest exact algorithms for the isolation of the real roots of a polynomial equation. (German summary) **82e:65054**
Alefeld, G. On the convergence of Halley's method. **82k:65024**
Arslanov, F. H. (*with* Tagirov, R. R.) Optimization with respect to order of the rate of convergence of a modification of the Newton method. (Russian) **82f:65056**
Bahar, E. (*with* Fitzwater, M.) Numerical technique to trace the loci of the complex roots of characteristic equations. **82k:65025**
Bjørstad, Petter (*with* Nocedal, Jorge) Analysis of a new algorithm for one-dimensional minimization. (German summary) **82f:65057**
Chen, Wei Xiong A parallel secant method for solving transcendental equations. (Chinese. English summary) **82k:65026**
Egerland, Walter O. Radix 65/39, a root searching algorithm for analytic equations. **82e:65055**
Fitzwater, M. *See* **Bahar, E., 82k:65025**
Foster, Leslie V. Generalizations of Laguerre's method: higher order methods. **82k:65027**

Gargantini, Irene Parallel square-root iterations for multiple roots. **82e:65056**
Hackl, J. (*with* Wacker, Hj.; Zulehner, W.) An efficient step size control for continuation methods. **82b:65037**
Imamov, A. Solution of nonlinear equations by the method of inverse spline-interpolation. (Russian) **82j:65027**
Kalmár, János The Pegasus methods for the solution of nonlinear equations. (Hungarian. English summary) **82g:65026**
Kim, Pyŏng Pae On stepsize of parameter continuation method combined with Newton method. (Korean. English summary) **82b:65038**
Kocięcki, M. *See* **Sikora, A., 82b:65042**
Krylov, V. I. Improvement of the convergence of sequences that rapidly converge to the limit. (Russian. English summary) **82b:65039**
van der Laan, Gerard (*with* Talman, A. J. J.) Convergence and properties of recent variable dimension algorithms. **82e:65057**
Larkin, F. M. A modification of the secant rule derived from a maximum likelihood principle. **82b:65040**
Root finding by divided differences. **82f:65058**
Milovanović, Gradimir V. (*with* Petković, Miodrag S.) On some modifications of a third order method for solving equations. (Serbo-Croatian summary) **82j:65028**
Neumann, Peter An asymptotically optimal procedure for searching a zero or an extremum of a function if a prior distribution of its location is known. (*See* **81c:62005**)
Nocedal, Jorge *See* **Bjørstad, Petter, 82f:65057**
Petković, Miodrag S. *See* **Milovanović, Gradimir V., 82j:65028**
Popovski, D. B. A note on Neta's family of sixth-order methods for solving equations. **82m:65046**
Prešić, Marica D. A convergence theorem for a method for simultaneous determination of all zeros of a polynomial. **82m:65047**
Scheu, Günter Optimale, beidseitig monotone bzw. alternierende Iterationsverfahren mit überlinearer Konvergenz. **82b:65041**
Sikora, A. (*with* Kocięcki, M.) Numerical evaluation of roots of quasipolynomials. **82b:65042**
Stewart, G. W. The behavior of a multiplicity independent root-finding scheme in the presence of error. **82b:65043**
Tagirov, R. R. *See* **Arslanov, F. H., 82f:65056**
Talman, A. J. J. *See* **van der Laan, Gerard, 82e:65057**
Todd, Michael J. Global and local convergence and monotonicity results for a recent variable-dimension simplicial algorithm. **82e:65058**
Wacker, Hj. *See* **Hackl, J.; et al., 82b:65037**
Wang, Xing Hua Local convergence of the Xu-Ostrowski iteration method for differentiable functions. (Chinese. English summary) **82g:65027**
Wasilkowski, G. W. Can any stationary iteration using linear information be globally convergent? **82b:65044**
n-evaluation conjecture for multipoint iterations for the solution of scalar nonlinear equations. **82c:65030**
Werschulz, Arthur G. Maximal order for multipoint methods with memory using Hermitian information. **82h:65038**
Xie, Shen Quan Convergence of Muller's method for finding roots. (Chinese) **82k:65028**
Xu, Li Zhi (*with* Zhu, Zi Qiang) A survey of certain iteration methods with global convergence. (Chinese. English summary) **82h:65039**
Zhu, Zi Qiang *See* **Xu, Li Zhi, 82h:65039**
Zulehner, W. *See* **Hackl, J.; et al., 82b:65037**

secondary classifications:

Akritas, Alkiviadis G. A correction on a theorem by Uspensky. **(82j:26015)**
Exact algorithms for the implementation of Cauchy's rule. **(82m:26017)**
(Alt, René) *See* **Vignes, Jean, (82g:65002)**
Channabasappa, M. N. The Bakhshālī square-root formula and high speed computation. **(82i:01013)**
Cruz, Andrés (*with* Sesma, Javier) Modulus and phase of the reduced logarithmic derivative of the cylindrical Bessel function. **(82h:33010)**
Di Lena, G. A fixed-point theorem intended for the calculation of real zeros of a function. (Italian. English summary) **(82f:26004)**
Georg, Kurt On tracing an implicitly defined curve by quasi-Newton steps and calculating bifurcation by local perturbations. **(82k:58031)**
Herzberger, J. Some multipoint-iteration methods for bracketing a zero with application to parallel computation. (*See* **82k:68003**)
King, Richard F. An efficient one-point extrapolation method for linear convergence. **(82b:65004)**
van de Lune, J. ★A note on the zeros of Flett's function. **(82k:33003)**
Miranker, Willard L. Parallel methods for solving equations. (*See* **82k:68003**)
Petković, Miodrag S. On a generalisation of the root iterations for polynomial complex zeros in circular interval arithmetic. (German summary) **(82g:30068)**
(Pichat, Michèle) *See* **Vignes, Jean, (82g:65002)**
Sesma, Javier *See* **Cruz, Andrés, (82h:33010)**
Siegberg, Hans Willi Brouwer degree: history and numerical computation. **(82i:01039)**
Vignes, Jean ★Algorithmes numériques, analyse et mise en œuvre. 2. (French) [Numerical algorithms, analysis and application. 2] **(82g:65002)**

65H10 Systems of equations

Alfeld, Peter Fixed point iteration with inexact function values. **82m:65048**
Chao, K. S. *See* **Pan, Ching Tsai,** (*See* **82e:94002**)
Correa V., A. *See* **Hidalgo S., R.; et al., 82d:65044**
Cromme, Ludwig J. Sind Fixpunktverfahren effektiv? (English summary) **82m:65049**
Čurilov, A. I. (*with* Manoĭlo, N. V.) Investigation of the convergence of the modified chord method. (Russian) **82c:65031**
Cutteridge, O. P. D. *See* **Dimmer, P. R., 82h:65041**
Cuyt, Annie A. M. Numerical stability of the Halley-iteration for the solution of a system of nonlinear equations. **82m:65050**
Dey, Suhrit K. PIS for *n*-coupled nonlinear systems. **82g:65028**
Generalized convergence analysis of perturbed Jacobi iterations. **82m:65051**
Convergence analysis of a perturbed iterative scheme (PIS) for solution of nonlinear systems. **82e:65059**
Dimmer, P. R. (*with* Cutteridge, O. P. D.) Second derivative Gauss-Newton-based method for solving nonlinear simultaneous equations. **82h:65041**
Ermakov, V. V. (*with* Kalitkin, N. N.) Optimal step and regularization of the Newton method. (Russian) **82f:65059**
Garcia, C. B. (*with* Zangwill, Willard I.) Global continuation methods for finding all solutions to polynomial systems of equations in *n* variables. **82a:65035**
(*with* Zangwill, Willard I.) The flex simplicial algorithm. **82g:65029**
(*with* Li, Tien Yien) On a path following method for systems of equations. **82f:65060**
Geise, Gerhard Geometrische Aspekte der Nullstellenbestimmung durch inverse Interpolation. [Geometric aspects of the determination of zeros via inverse interpolation] **82m:65052**
Georg, Kurt A simplicial deformation algorithm with applications to optimization, variational inequalities and boundary value problems. **82b:65045**
Gomez M., A. *See* **Hidalgo S., R.; et al., 82d:65044**
Griewank, Andreas (*with* Osborne, M. R.) Newton's method for singular problems when the dimension of the null space is >1. **82c:65032**
Gumen, N. B. A method of modifying solutions of piecewise linear equations. (Russian. English summary) **82k:65029**
den Heijer, C. (*with* Rheinboldt, Werner C.) On steplength algorithms for a class of continuation methods. **82h:65040**
Hidalgo S., R. (*with* Correa V., A.; Gomez M., A.; Seader, J. D.) An optimal arrangement of simultaneous linearized equations for general systems of interlinked, multistaged separators. **82d:65044**
Jablonski, Aleksander A Monte Carlo algorithm for solving systems of nonlinear equations. **82b:65046**
Kalitkin, N. N. *See* **Ermakov, V. V., 82f:65059**
Kamat, M. P. (*with* Watson, Layne T.; Vanden Brink, D. J.) An assessment of quasi-Newton sparse update techniques for nonlinear structural analysis. **82f:65061**
Köberl, D. The solution of nonlinear equations by the computation of fixed points with a modification of the sandwich method. (German summary) **82e:65060**
Li, Tien Yien (*with* Yorke, James A.) A simple reliable numerical algorithm for following homotopy paths. **82b:65047**
See also **Garcia, C. B., 82f:65060**
Lopes, T. L. *See* **Martínez, José Mario, 82i:65033**
Manoĭlo, N. V. *See* **Čurilov, A. I., 82c:65031**
Martínez, José Mario Solving nonlinear simultaneous equations with a generalization of Brent's method. **82h:65048**
(*with* Lopes, T. L.) Combination of the sequential secant method and Broyden's method with projected updates. (German summary) **82i:65033**
Mukai, H. Parallel algorithms for solving systems of nonlinear equations. **82k:65030**
Nickel, Karl L. A globally convergent ball Newton method. **82k:65031**
Osborne, M. R. *See* **Griewank, Andreas, 82c:65032**
Pan, Ching Tsai (*with* Chao, K. S.) Multiple solutions of a class of nonlinear equations. (*See* **82e:94002**)
Paumier, Jean-Claude Une méthode numérique pour le calcul des points de retournement. Application à un problème aux limites non-linéaire. I. Étude théorique et expérimentation de la méthode. (English summary) **82i:65034a**
Une méthode numérique pour le calcul des points de retournement. Application à un problème aux limites non-linéaire. II. Analyse numérique d'un problème aux limites non-linéaire. (English summary) **82i:65034b**
Potra, Florian Alexandru (*with* Pták, Vlastimil) A generalization of regula falsi. **82j:65029**
Pták, Vlastimil *See* **Potra, Florian Alexandru, 82j:65029**
Qi, Li Qun An improved Krawczyk-Moore interval iteration method. (Chinese. English summary) **82j:65030**
Rheinboldt, Werner C. *See* **den Heijer, C., 82h:65040**
Seader, J. D. *See* **Hidalgo S., R.; et al., 82d:65044**
Shamir, Shlomo Two new triangulations for homotopy fixed point algorithms with an arbitrary grid refinement. **82h:65049**
Spellucci, P. An approach to backward analysis for linear and nonlinear iterative methods. (German summary) **82e:65061**
Stynes, Martin An *N*-dimensional bisection method for solving systems of *N* equations in *N* unknowns. **82f:65062a**
An *N*-dimensional bisection method for solving systems of *N* equations in *N* unknowns. **82f:65062b**
Todd, Michael J. Numerical stability and sparsity in piecewise-linear algorithms. **82h:65050**
Vanden Brink, D. J. *See* **Kamat, M. P.; et al., 82f:65061**
Watson, Layne T. *See* **Kamat, M. P.; et al., 82f:65061**
Weber, Helmut (*with* Werner, W.) On the accurate determination of nonisolated solutions of nonlinear equations. (German summary) **82e:65062**
Werner, W. *See* **Weber, Helmut, 82e:65062**
Yorke, James A. *See* **Li, Tien Yien, 82b:65047**
Zangwill, Willard I. *See* **Garcia, C. B., 82a:65035** *and* **82g:65029**

secondary classifications:

(Alt, René) *See* **Vignes, Jean, (82g:65002)**
Arkin, B. I. (*with* Saksonov, M. T.) To the maximum principle theory for problems of control of stochastic differential equations. **(82g:49013)**
Burdakov, O. P. Some globally converging modifications of the Newton method for solving systems of nonlinear equations. (Russian) **(82g:58010)**
Censor, Yair Row-action methods for huge and sparse systems and their applications. **(82k:65014)**
Cih, A. K. Bezout's theorem in space, theories of functions. Solution of systems of algebraic equations. (Russian) **(82k:14008)**

Field, David A. An algorithm for determining invertible quadratic isoparametric finite element transformations. **(82i:65071)**
Geradin, M. (*with* Idelsohn, S.; Hogge, M. A.) Computational strategies for the solution of large nonlinear problems via quasi-Newton methods. **(82k:73054)**
Gerencsér, L. On a stabilization method of Miele (convergence and applications). **(82g:49027)**
Gould, F. J. Recent and past developments in the simplicial approximation approach to solving nonlinear equations—a subjective view. **(82b:90097)**
Heinemann, R. F. (*with* Poore, A. B.) Hopf bifurcation computations for distributed parameter systems. **(82a:35012)**
Hogge, M. A. *See* **Geradin, M.; et al., (82k:73054)**
Hovanskiĭ, A. G. A class of systems of transcendental equations. (Russian) **(82a:14006)**
Idelsohn, S. *See* **Geradin, M.; et al., (82k:73054)**
Imanov, A. Solution of nonlinear equations by the method of inverse spline-interpolation. (Russian) **(82j:65027)**
Ioščihes, A. P. *See* **Voropanov, S. A., (82f:65065)**
Jefferys, William H. On the method of least squares. II. **(82f:65146)**
van der Laan, Gerard ★Simplicial fixed point algorithms. **(82m:90149b)**
(*with* Talman, A. J. J.) A class of simplicial restart fixed point algorithms without an extra dimension. **(82d:90109)**
See also **Talman, A. J. J., (82m:90149a)**
Lazard, Daniel Résolution des systèmes d'équations algébriques. (English summary) **(82i:12001)**
Noor, Ahmed K. Recent advances in reduction methods for nonlinear problems. **(82k:73058)**
Novoselov, V. S. Algorithmization of the asymptotic theory of optimization of two-impulse transfer. (Russian) **(82f:70017)**
(Pichat, Michèle) *See* **Vignes, Jean, (82g:65002)**
Poore, A. B. *See* **Heinemann, R. F., (82a:35012)**
Rheinboldt, Werner C. Numerical analysis of continuation methods for nonlinear structural problems. **(82i:73043)**
Saksonov, M. T. *See* **Arkin, B. I., (82g:49013)**
Sapagovas, Mifodijus (*with* Sapagovienė, D.) Some numerical results on the solution of nonlinear and nonselfadjoint problems by the alternatively triangular method. (Russian. Lithuanian and English summaries) **(82c:65062)**
Sapagovienė, D. *See* **Sapagovas, Mifodijus, (82c:65062)**
Schneider, N. Monotone Einschließung durch Verfahren vom Regula-falsi-Typ unter Verwendung eines verallgemeinerten Steigungsbegriffes. (English summary) **(82f:65067)**
Stynes, Martin On the construction of sufficient refinements for computation of topological degree. **(82i:55001)**
Tadeusiewicz, Michał On the solvability and computation of D.C. transistor networks. **(82j:94027)**
Talman, A. J. J. ★Variable dimension fixed point algorithms and triangulations. **(82m:90149a)**
See also **van der Laan, Gerard, (82d:90109)** *and* **(82m:90149b)**
Trojan, J. M. Tight bounds on the complexity index of one-point iterations. **(82e:68045)**
Vignes, Jean ★Algorithmes numériques, analyse et mise en œuvre. 2. (French) [Numerical algorithms, analysis and application. 2] **(82g:65002)**
Voropanov, S. A. (*with* Ioščihes, A. P.) A method for accelerating the convergence of monotone iteration processes. (Russian. Tajiki summary) **(82f:65065)**
Watson, Layne T. (*with* Yang, Wei H.) Optimal design by a homotopy method. **(82b:58021)**
(*with* Yang, Wei H.) Methods for optimal engineering design problems based on globally convergent methods. **(82j:73060)**
Werner, Bodo Turning points of branches of positive solutions. **(82i:58022)**
Wildenauer, Peter Ein Beweisprinzip bei der Berechnung von Fixpunkten. **(82g:65031)**
Yamamoto, Tetsuro Error bounds for computed eigenvalues and eigenvectors. **(82b:65028)**
Yang, Wei H. *See* **Watson, Layne T., (82b:58021)** *and* **(82j:73060)**

65H15 Eigenvalues, eigenvectors

Jürgens, Hartmut (*with* Peitgen, Heinz-Otto; Saupe, Dietmar) Topological perturbations in the numerical study of nonlinear eigenvalue and bifurcation problems. **82e:65063**
Peitgen, Heinz-Otto *See* **Jürgens, Hartmut; et al., 82e:65063**
Saupe, Dietmar *See* **Jürgens, Hartmut; et al., 82e:65063**

65H99 None of the above, but in this section

secondary classifications:

Akritas, Alkiviadis G. (*with* Danielopoulos, S. D.) On the complexity of algorithms for the translation of polynomials. (German summary) **(82m:68080)**
Danielopoulos, S. D. *See* **Akritas, Alkiviadis G., (82m:68080)**

65Jxx Numerical analysis in abstract spaces

secondary classifications:

Trenogin, V. A. ★Функциональный анализ. (Russian) [Functional analysis] **(82k:46001)**

65J05 General

Ageev, A. L. (*with* Vasin, V. V.) Convergence of the generalized method of residuals and its discrete approximations. (Russian) **82k:65032**
Gal, Shmuel (*with* Micchelli, Charles A.) Optimal sequential and nonsequential procedures for evaluating a functional. **82c:65033**
Micchelli, Charles A. *See* **Gal, Shmuel, 82c:65033**
Vasin, V. V. *See* **Ageev, A. L., 82k:65032**

secondary classifications:

Ding, Xia Xi (*with* Fang, Hui Zhong; Luo, Pei Zhu) Special spaces and error estimates. (Chinese) **(82h:35046)**
Fang, Hui Zhong *See* **Ding, Xia Xi; et al., (82h:35046)**
Khalifah, Mohammed F. An upper bound for the subdominant eigenvalue of a linear operator. (*See* **81j:76001**)
Kulkarni, R. P. (*with* Limaye, B. V.) On error bounds in strong approximations for eigenvalue problems. **(82e:65100)**
Larkin, F. M. A probabilistic approach to the estimation of functionals. **(82d:41050)**
Lavrent'ev, M. M. (*with* Romanov, V. G.; Šišatskiĭ, S. P.) ★Некорректные задачи математической физики и анализа. (Russian) [Ill-posed problems of mathematical physics and analysis] **(82g:65003)**
Limaye, B. V. *See* **Kulkarni, R. P., (82e:65100)**
Luo, Pei Zhu *See* **Ding, Xia Xi; et al., (82h:35046)**
Romanov, V. G. *See* **Lavrent'ev, M. M.; et al., (82g:65003)**
Sandberg, Irwin W. On Newton-direction algorithms and diffeomorphisms. **(82g:58011)**
Schmidt, Jochen W. Monotone Eingrenzung von inversen Elementen durch ein quadratisch konvergentes Verfahren ohne Durchschnittsbildung. **(82j:65019)**
Šišatskiĭ, S. P. *See* **Lavrent'ev, M. M.; et al., (82g:65003)**

65J10 Equations with linear operators (do not use 65Fxx)

Bellen, Alfredo An extended collocation method. **82i:65035**
Brombeer, R. Verallgemeinerte Ausgleichsformeln und relativ optimale Formeln in Hilberträumen. (English summary) **82f:65063**
Domanskiĭ, E. N. A class of strongly *B*-solvable linear regularizing algorithms. (Russian) **82j:65032**
Habibullin, R. F. On the problem of point identification. (Russian) **82c:65034**
Hilgers, John W. A note on estimating the optimal regularization parameter. **82e:65064**
Hoang Van Laĭ *See* **Sobolevskiĭ, P. E., 82e:65066** *and* **82f:65064**
Ioščihes, A. P. *See* **Voropanov, S. A., 82f:65065**
Jačimovič, M. D. *See* **Vasil'ev, F. P., 82a:65036**
Jory, Virginia V. Approximators to generalized inverses as regularizers of ill-posed problems. **82k:65033**
Kolomý, Josef An approximate method for determination of eigenvalues and eigenvectors of selfadjoint operators. (Czech summary) **82i:65036**
Li, Rong Hua On estimation of the convergence rate for the Galerkin method. (Chinese. English summary) **82m:65053**
Makarov, V. L. *See* **Samarskiĭ, A. A., 82d:65045**
Oden, J. T. Penalty-finite element approximations of unilateral problems in elasticity. **82e:65065**
Perfilov, S. N. A method for solution of a linear operator equation. (Russian) **82i:65037**
Samarskiĭ, A. A. (*with* Makarov, V. L.) Application of exact difference schemes to estimation of the rate of convergence of the method of lines. (Russian. Georgian and English summaries) **82d:65045**
Sobolevskiĭ, P. E. (*with* Hoang Van Laĭ) Difference schemes of optimal type for approximate solution of parabolic equations. (Russian) **82f:65064**
(*with* Hoang Van Laĭ) Difference schemes of optimal type for the approximate solution of parabolic equations (the Banach case). (Russian) **82e:65066**
Sohin, A. S. An economical iteration method for solving an elliptic equation in Hilbert space. (Russian) **82j:65033**
Song, Ch'ang Ho Variational methods for the solution of linear operator equations in Hilbert space. (Korean. English summary) **82d:65046**
Ushijima, Teruo Note on the error estimate for the Newmark-β method applied to the second order linear evolution equation of hyperbolic type. **82g:65030**
Vainikko, G. Error estimates of the successive approximation method for ill-posed problems. **82j:65034**
Vasil'ev, F. P. (*with* Jačimovič, M. D.) Iterative regularization of the conditional gradient method and the Newton method in the case of not precisely given input data. (Russian) **82a:65036**
Voropanov, S. A. (*with* Ioščihes, A. P.) A method for accelerating the convergence of monotone iteration processes. (Russian. Tajiki summary) **82f:65065**

secondary classifications:

Arsenin, V. Ja. *See* **Tihonov, A. N., (82e:65002)**
Asimova, D. M. Two-sided approximations to a solution of linear operator equations and an estimate of error. (Russian. Tajiki summary) **(82j:47017)**
Baker, Garth A. (*with* Dougalis, Vassilios A.; Serbin, Steven M.) An approximation theorem for second-order evolution equations. **(82b:34078)**
Berger, W. A. *See* **Kreuzer, K.-G.; et al., (82e:47037)**
Djakin, V. V. (*with* Raevskiĭ, V. Ja.) The method of penalty functions in eigenvalue problems. (Russian) **(82k:49056)**
Dolezal, Vaclav An approximation theorem for a Hammerstein-type equation and applications. **(82j:47081)**
Domanskiĭ, E. N. Conditions for strong *B*-solvability of linear regularizing algorithms. (Russian) **(82i:47014)**
Dougalis, Vassilios A. *See* **Baker, Garth A.; et al., (82b:34078)**
Engl, Heinz W. Necessary and sufficient conditions for convergence of regularization methods for solving linear operator equations of the first kind. **(82j:47018)**
Falk, R. S. (*with* Osborn, John E.) Error estimates for mixed methods. (French summary) **(82j:65076)**
Groetsch, C. W. On the Kryanev-Lardy method for ill-posed problems. **(82e:47014)**
Kolomý, Josef Determination of eigenvalues and eigenvectors of selfadjoint operators. **(82g:47013)**
Krasnosel'skiĭ, M. A. (*with* Lifšic, E. A.; Pokornyĭ, Ju. V.; Stecenko, V. Ja.) Positive invertibility of linear operators. (Russian) **(82f:47050)**
Kreuzer, K.-G. (*with* Miller, H. G.; Berger, W. A.) The Lanczos algorithm for selfadjoint operators. **(82e:47037)**
Kurbatov, A. V. *See* **Lazarev, M. I., (82i:47015)**

Lazarev, M. I. (*with* Kurbatov, A. V.) Iteration regularization for equations on a spectrum. (Russian) **(82i:47015)**
Lifšic, E. A. *See* **Krasnosel'skiĭ, M. A.; et al., (82f:47050)**
Lučka, A. Ju. ★Проекционно-итеративные методы решения дифференциальных и интегральных уравнений. (Russian) [Projective-iterative methods for solving differential and integral equations] **(82e:65001)**
Miller, H. G. *See* **Kreuzer, K.-G.; et al., (82e:47037)**
Nazimov, A. B. On the rate of convergence of the regularization method in Hilbert space. (Russian. Tajiki summary) **(82m:47011)**
Osborn, John E. *See* **Falk, R. S., (82j:65076)**
Petunin, Ju. I. *See* **Vinokurov, V. A.; et al., (82g:47002)**
de Pillis, John How to embrace your spectrum for faster iterative results. **(82g:65021)**
Plíčko, A. M. *See* **Vinokurov, V. A.; et al., (82g:47002)**
Pokornyĭ, Ju. V. *See* **Krasnosel'skiĭ, M. A.; et al., (82f:47050)**
Potra, Florian Alexandru An application of the induction method of V. Pták to the study of regula falsi. (Czech summary) **(82f:58013)**
Raevskiĭ, V. Ja. *See* **Djakin, V. V., (82k:49056)**
Rappaz, J. Spectral pollution of a noncompact operator. **(82m:47012)**
Razumeiko, B. G. (*with* Trenogin, V. A.) Regularization of approximation schemes in the case of a Fredholm equation. (Russian) **(82c:47013)**
Rogava, Dž. L. Stability of the semidiscretization method for second-order hyperbolic differential-operator equations. (Russian. Georgian and English summaries) **(82g:65035)**
Rostamian, Rouben Continuity properties of stationary points of quadratic functionals in Hilbert space. **(82m:49032)**
Šafiev, R. A. On the stability of pseudoinversion. (Russian. Azerbaijani and English summaries) **(82h:47010)**
Schulz, Jürgen Über die Konstruktion von im allgemeinen unstetigen inversen Operatoren. **(82d:47004)**
Serbin, Steven M. *See* **Baker, Garth A.; et al., (82b:34078)**
Shekhtman, Boris The limits of abstract splines. **(82g:41035)**
Sidorov, N. A. (*with* Trenogin, V. A.) Regularization of linear controls on the basis of perturbation theory. (Russian) **(82a:47011)**
Sohin, A. S. An optimal iteration method for solving evolution equations in Hilbert space. (Russian) **(82f:34073)**
Stecenko, V. Ja. *See* **Krasnosel'skiĭ, M. A.; et al., (82f:47050)**
Sun, Ji Guang Invariant subspaces and generalized invariant subspaces. II. Perturbation theorems. (Chinese. English summary) **(82f:47011)**
Tanana, V. P. Regularization of operator equations of the first kind with an approximately given operator and choice of regularization parameter. (Russian) **(82i:47016)**
Tihonov, A. N. (*with* Arsenin, V. Ja.) ★Методы решения некорректных задач. (Russian) [Methods for the solution of ill-posed problems] **(82e:65002)**
Trenogin, V. A. *See* **Sidorov, N. A., (82a:47011)** *and* **Razumeiko, B. G., (82c:47013)**
Vinokurov, V. A. (*with* Petunin, Ju. I.; Plíčko, A. M.) Measurability and regularizability of mappings that are inverses of continuous linear operators. (Russian) **(82g:47002)**

65J15 Equations with nonlinear operators (do not use 65Hxx)

Ageev, A. L. Regularization of nonlinear operator equations on the class of discontinuous functions. (Russian) **82h:65042**
Arslanov, F. H. *See* **Kurčatov, V. A., 82e:65070**
Babaeva, A. È. *See* **Šafiev, R. A., 82h:65043**
Balázs, M. On a method of third order. (Romanian summary) **82e:65067**
Bartiš, M. Ja. (*with* Jarema, L. L.) Application of a class of methods of the Newton-Kantorovič type to the solution of nonlinear boundary value problems. (Ukrainian. Russian summary) **82e:65068**
Bassanini, Piero (*with* Filiaggi, Elvira) Iterative schemes and acceleration of convergence for contraction operators on the product of two Banach spaces. (Italian. English summary) **82d:65047**
Bel'tjukov, B. A. (*with* Černjak, V. Ja.) Investigation of the quadratic convergence of an iteration process of the Newton-Kantorovič type with disparate arguments. (Russian) (*See* **81d:65003**)
Bernardi, Christine Approximation numérique d'une bifurcation de Hopf. (English summary) **82c:65035**
Beyn, Wolf-Jürgen On discretizations of bifurcation problems. **82a:65037**
Böhmer, Klaus Discrete Newton methods and iterated defect corrections. **82j:65035**
Černjak, V. Ja. *See* **Bel'tjukov, B. A., (*See* 81d:65003)**
Dunn, J. C. Newton's method and the Goldstein step-length rule for constrained minimization problems. **82a:65038**
Filiaggi, Elvira *See* **Bassanini, Piero, 82d:65047**
Gavrikov, A. I. *See* **Slugin, S. N., 82e:65073**
Groze, Sever On Steffensen's method for solving nonlinear operator equations defined in Fréchet spaces. **82i:65038**
Hegedüs, J. Two-sided approximations of the solutions of certain differential and operator equations. (Russian) **82d:65048**
Jain, Vijay K. *See* **Sarkar, Tapan K.; et al., 82e:65071**
Jarema, L. L. *See* **Bartiš, M. Ja., 82e:65068**
Kershaw, Donald An error analysis for a numerical solution of the eigenvalue problem for compact positive operators. **82a:65039**
Kurčatov, V. A. The method of linearized residuals for the approximate solution of functional equations. (Russian) **82e:65069**
(*with* Arslanov, F. H.) L. V. Kantorovič's theorem for a class of methods of linearization of the approximate solution of functional equations. (Russian) **82e:65070**
A difference linearization method that is optimal with respect to the order of error of numerical differentiation. (Russian) **82d:65049**
Lannes, A. Abstract holography. **82d:65050**
Lindberg, Bengt Error estimation and iterative improvement for discretization algorithms. **82j:65036**
Lippold, G. Schätzung von Diskretisierungsfehlern bei der Lösung von Gleichungen in Banach-Räumen. (English and Russian summaries) [Estimation of discretization errors in the solution of equations in Banach spaces] **82m:65054**
Martinjuk, A. È. Application of methods of Galerkin type and combinatorial type to a nonlinear equation with a principal linear operator. (Russian) **82j:65037**
Moore, Gerald (*with* Spence, A.) The convergence of approximations to nonlinear equations at simple turning points. **82d:65051**
See also **Spence, A., 82e:65074**
Neuberger, John W. Iteration for systems of nonlinear partial differential equations. **82f:65066**
Potra, Florian Alexandru (*with* Pták, Vlastimil) Nondiscrete induction and a double step secant method. **82a:65040**
The rate of convergence of a modified Newton's process. (Czech summary) **82j:65038**
Pták, Vlastimil *See* **Potra, Florian Alexandru, 82a:65040**
Rall, Louis B. ★Computational solution of nonlinear operator equations. **82a:65041**
Reich, Simeon Constructing zeros of accretive operators. **82d:65052a**
Constructing zeros of accretive operators. II. **82d:65052b**
Šafiev, R. A. (*with* Babaeva, A. È.) Convergence of a class of iterative methods of regula falsi type. (Russian) **82h:65043**
Sarkar, Tapan K. (*with* Weiner, Donald D.; Jain, Vijay K.) Some mathematical considerations in dealing with the inverse problem. **82e:65071**
Ščerbina, Ju. M. A class of iteration methods for the solution of nonlinear operator equations in a Banach space. (Ukrainian. Russian summary) **82a:65042**
Scheurle, Jürgen Newton iterations without inverting the derivative. **82e:65072**
Schneider, N. Monotone Einschließung durch Verfahren vom Regula-falsi-Typ unter Verwendung eines verallgemeinerten Steigungsbegriffes. (English summary) **82f:65067**
Slugin, S. N. (*with* Gavrikov, A. I.) Some approximate methods of searching for the optimal element in a partially ordered Banach space. (Russian) **82e:65073**
Spence, A. (*with* Moore, Gerald) A convergence analysis for turning points of nonlinear compact operator equations. **82e:65074**
See also **Moore, Gerald, 82d:65051**
Vaarmann, O. On a class of Levenberg-Marquardt-type methods. (Estonian and Russian summaries) **82f:65068**
Weber, Helmut (*with* Werner, W.) On the numerical solution of some finite-dimensional bifurcation problems. **82h:65044**
Weiner, Donald D. *See* **Sarkar, Tapan K.; et al., 82e:65071**
Werner, W. *See* **Weber, Helmut, 82h:65044**
Wildenauer, Peter Ein Beweisprinzip bei der Berechnung von Fixpunkten. **82g:65031**
Wolfe, M. A. An existence-convergence theorem for a class of iterative methods. **82i:65039**
Zarzer, E. A. On the method of extrapolation in the case of several discretization parameters. **82f:65069**

secondary classifications:

Anselone, P. M. Discrete approximation of operator equations. **(82m:47042)**
Appel', Ju. (*with* Zabreĭko, P. P.) Condensing operators in the theory of implicit functions. (Russian) **(82j:58012)**
Bruckner, Gottfried On the speed of convergence of iteration methods. **(82c:47069)**
Černyšenko, V. M. *See* **Ogneva, V. A., (82f:47075)**
Cuyt, Annie A. M. Numerical stability of the Halley-iteration for the solution of a system of nonlinear equations. **(82m:65050)**
Fonarëv, A. A. The projection-iteration method of steepest descent. (Russian) **(82d:47071)**
Solution of nonlinear equations with monotone mapping in Hilbert space. (Russian) **(82g:47044)**
A method for solving monotone variational inequalities. (Russian) **(82i:49033)**
Georg, Kurt On tracing an implicitly defined curve by quasi-Newton steps and calculating bifurcation by local perturbations. **(82k:58031)**
Groze, Sever The principle of the majorant in solving operator equations which depend on parameters. **(82d:47067)**
Ibragimov, Š. I. The method of lines for a differential equation with a monotone operator in Banach space. (Russian) **(82e:34066)**
Jackiewicz, Zdzisław (*with* Kwapisz, Marian) On numerical integration of implicit ordinary differential equations. (Czech summary) **(82e:65079)**
Kaucher, E. (*with* Rump, S. M.) Generalized iteration methods for bounds of the solution of fixed point operator-equations. (German summary) **(82k:47075)**
Keller, Herbert B. Geometrically isolated nonisolated solutions and their approximation. **(82j:58013)**
Korablev, A. I. (*with* Mironov, O. V.) An algorithm for the ε-subgradient method of minimization and its application. (Russian) **(82a:90142)**
Kwapisz, Marian *See* **Jackiewicz, Zdzisław, (82e:65079)**
Lei, Jin Gan The existence of the solution of a compact operator equation and its approximation. (Chinese) **(82j:47077)**
Leonov, A. S. On the choice of the regularization parameter for nonlinear ill-posed problems with an approximately defined operator. (Russian) **(82c:47079)**
Liskovec, O. A. On the Maslov-Morozov property in the regularization method for nonlinear equations of the first kind. (Russian) **(82i:47096)**
Mamedov, G. K. On the approximate solution of nonlinear operator equations. (Russian. Azerbaijani and English summaries) **(82k:47070)**
Marx, B. (*with* Vogel, J.) Analytizitätseigenschaften der Lösungen nichtlinearer Operatorgleichungen vom Hammerstein-Typ und rekursive Bestimmung ihrer Lösung. (English and Russian summaries) **(82f:58033)**
Meleško, V. I. Perturbed iteration methods for determining L generalized solutions of nonlinear operator equations. (Russian) **(82i:47097)**
Mironov, O. V. *See* **Korablev, A. I., (82a:90142)**
Mittelmann, Hans-Detlef (*with* Weber, Helmut) Numerical methods for bifurcation problems—a survey and classification. **(82d:58021)**
Nevanlinna, Olavi Global iteration schemes for monotone operators. **(82b:47081)**
Ogneva, V. A. (*with* Černyšenko, V. M.) An iteration process with successive

approximation of the inverse operator. (Russian) **(82f:47075)**

Petzeltová, Hana Remark on a Newton-Moser type method. **(82b:58016)**

Rump, S. M. *See* **Kaucher, E., (82k:47075)**

Sandberg, Irwin W. Diffeomorphisms and Newton-direction algorithms. **(82e:58014)**
On Newton-direction algorithms and diffeomorphisms. (*See* **82d:93001)**

Serdjuckaja, L. F. The convergence of a nonstationary iterative method for solving operator equations in a semiordered Banach space. (Russian) **(82f:47076)**

Shih, Mou Hsiang A further generalization of the Ostrowski theorem in Banach spaces. **(82j:58015)**

Svaričevskaja, N. A. Approximate solution of a nonlinear problem with a parameter through a combination of the Newton-Kantorovič method and the method of averaging functional corrections. (Russian) **(82f:47077)**

Tanana, V. P. The solution of implicit operator equations of the first kind and their application. (Russian) **(82b:47082)**

Traub, J. F. (*with* Woźniakowski, H.) Convergence and complexity of interpolatory-Newton iteration in a Banach space. **(82g:58012)**

Vogel, J. *See* **Marx, B., (82f:58033)**

Wasilkowski, G. W. Can any stationary iteration using linear information be globally convergent? **(82b:65044)**

Weber, Helmut *See* **Mittelmann, Hans-Detlef, (82d:58021)**

Woźniakowski, H. *See* **Traub, J. F., (82g:58012)**

Zabreiko, P. P. *See* **Appel', Ju., (82j:58012)**

Zlepko, P. P. Application of the method of averaging functional corrections to the approximate construction of an implicit function. (Russian. English summary) **(82a:47061)**

65J99 None of the above, but in this section

secondary classifications:

Ch'oe, Yŏng Ho An approximate method of solution for a nonlinear system of differential equations with retarded argument using upper and lower functional series. (Korean. English summary) **(82i:65061)**

Didenko, V. D. Methods of mechanical quadrature for systems of singular integral equations in spaces of Hölder functions. (Russian) (*See* **82g:65004)**

Halmuradov, Ė. Some estimates for a singular integral with locally summable density. (Russian) **(82b:45008)**

Il'in, V. P. (*with* Šubočkina, T. A.) Some imbedding theorems of the function spaces $W_{\vec{p},\vec{a},\infty}^{l}(G)$. (Russian) **(82b:46041)**

Meleško, V. I. Regularized and recurrent estimates using pseudoinverse operators. (Russian) **(82c:62045)**

Popova, Anna A. Application of the method of steepest descent to the solution of asymmetric operator equations. (Russian) **(82e:35041)**

Šubočkina, T. A. *See* **Il'in, V. P., (82b:46041)**

Tihonov, A. N. A principle of mutuality. (Russian) **(82e:49004)**

65Kxx Mathematical programming, optimization and variational techniques [See also 49Dxx, 90Cxx, 93–XX.]

secondary classifications:

Findeisen, Władysław (*with* Szymanowski, Jacek; Wierzbicki, Andrzej P.) ★Teoria i metody obliczeniowe optymalizacji. (Polish) [Theory and numerical methods of optimization] **(82c:49001)**

Großmann, Christian (*with* Kleinmichel, Helmut) ★Verfahren der nichtlinearen Optimierung. (German) [Methods of nonlinear optimization] **(82m:90134)**

Kleinmichel, Helmut *See* **Großmann, Christian, (82m:90134)**

Szymanowski, Jacek *See* **Findeisen, Władysław; et al., (82c:49001)**

Wierzbicki, Andrzej P. *See* **Findeisen, Władysław; et al., (82c:49001)**

65K05 Mathematical programming

Boičuk, L. M. *See* **Krotov, G. Ĭ., 82b:65053**

Bräuninger, Jürgen A quasi-Newton method with Cholesky factorization. (German summary) **82e:65075**

Bulič ev, S. F. (*with* Volčenkov, S. G.) Optimal plane packings of trees. (Russian) **82g:65032**

Cohen, A. I. Stepsize analysis for descent methods. **82j:65039**

Corradi, Corrado A note on the solution of separable nonlinear least-squares problems with separable nonlinear equality constraints. **82k:65034**

Deng, Nai Yang (*with* Zhu, Mei Fang) A discussion of the theoretical basis of Powell's method. (Chinese) **82h:65045**

Faigle, Ulrich The greedy algorithm for partially ordered sets. **82b:65051**

Gens, G. V. (*with* Levner, E. V.) Fast approximation algorithms for knapsack type problems. **82a:65043**

Glasser, David *See* **de Villiers, Noël, 82k:65036**

Hald, Jørgen (*with* Madsen, Kaj) Minimax optimization using quasi-Newton methods. **82b:65052**

Heunis, A. J. *See* **Mayne, D. Q.; et al., 82i:65040**

Kaneko, S. *See* **Yanai, H.; et al., 82m:65056**

Kleinmichel, Helmut Quasi-Newton-Verfahren vom Rang-Eins-Typ zur Lösung unrestringierter Minimierungsprobleme. I. Verfahren und grundlegende Eigenschaften. (English summary) [Quasi-Newton methods of rank-one-type for the solution of unconstrained minimization problems. I. Methods and general properties] **82j:65040a**
Quasi-Newton-Verfahren vom Rang-Eins-Typ zur Lösung unrestringierter Minimierungsprobleme. II. n-Schritt-quadratische Konvergenz für Restart-Varianten. (English summary) [Quasi-Newton methods of rank-one-type for the solution of unconstrained minimization problems. II. n-step quadratic convergence for restart variants] **82j:65040b**

König, Hermann (*with* Pallaschke, Diethard) On Khachian's algorithm and minimal ellipsoids. **82c:65036**

Krotov, G. Ĭ. (*with* Boičuk, L. M.) A variable metric gradient method of optimization in the case of nonlinear constraints. **82b:65053**

Levner, E. V. *See* **Gens, G. V., 82a:65043**

Madsen, Kaj *See* **Hald, Jørgen, 82b:65052**

Mayne, D. Q. (*with* Polak, Elijah; Heunis, A. J.) Solving nonlinear inequalities in a finite number of iterations. **82i:65040**

Milaszewicz, J. P. On fixed point linear equations. **82k:65035**

Ozawa, M. *See* **Yanai, H.; et al., 82m:65056**

Pallaschke, Diethard *See* **König, Hermann, 82c:65036**

Pankov, P. S. An algorithm of conclusive search for the extremum using the domain minorant. (Russian) **82j:65041**

Polak, Elijah *See* **Mayne, D. Q.; et al., 82i:65040**

Ritter, Klaus Convergence and superlinear convergence of algorithms for linearly constrained minimization problems. **82c:65037**
On the rate of superlinear convergence of a class of variable metric methods. **82b:65054**

Stachurski, Andrzej Superlinear convergence of symmetric Huang's class of methods. **82m:65055**

Tanabe, Kunio A geometric method in nonlinear programming. **82i:65041**

van der Vet, Robert Peter ★Flexible solutions to systems of linear equalities and inequalities. **82c:65038**

de Villiers, Noël (*with* Glasser, David) A continuation method for nonlinear regression. **82h:65036**

Volčenkov, S. G. *See* **Bulič ev, S. F., 82g:65032**

Wolsey, Laurence A. A resource decomposition algorithm for general mathematical programs. **82d:65053**

Yanai, H. (*with* Ozawa, M.; Kaneko, S.) Interpolation methods in one-dimensional optimization. (German summary) **82m:65056**

Ying, Mei Qian The least sum of squares with constraints. (Chinese) **82j:65042**

Zhu, Mei Fang *See* **Deng, Nai Yang, 82h:65045**

secondary classifications:

Al'ber, Ja. I. Minimization of functionals of class $C^{1,\mu}$ on bounded sets. (Russian) **(82e:49054)**

Archetti, Francesco (*with* Szegö, G. P.) Global optimization algorithms. **(82a:90129)**

Bartels, Richard H. (*with* Conn, Andrew R.) Linearly constrained discrete l_1 problems. **(82a:90165)**

Bertocchi, M. (*with* Cavalli, E.; Spedicato, Emilio) Computational performance of diagonalized multiplier quasi-Newton methods for nonlinear optimization with equality constraints. **(82i:90090)**

Best, M. J. (*with* Bräuninger, Jürgen; Ritter, Klaus; Robinson, Stephen M.) A globally and quadratically convergent algorithm for general nonlinear programming problems. (German summary) **(82j:90063)**

Bollen, Joseph Antonius Maria ★Round-off error analysis of descent methods for solving linear equations. **(82c:65028)**

(Bonniger, T.) *See* **Burkard, Rainer E.; et al., (82i:90073)**

Bräuninger, Jürgen A quasi-Newton method for minimization under linear constraints without evaluating any derivatives. (German summary) **(82m:90133)**
See also **Best, M. J.; et al., (82j:90063)**

Brunner, J. K. Piecewise linear optimization. (German summary) **(82e:90052)**

Burkard, Rainer E. (*with* Derigs, Ulrich) ★Assignment and matching problems: solution methods with FORTRAN programs. **(82i:90073)**

Cavalli, E. *See* **Bertocchi, M.; et al., (82i:90090)**

Chaney, Robin W. (*with* Goldstein, A. A.) On directions of ε-steepest descent for real-valued Lipschitz continuous functions. **(82i:90091)**

Conn, Andrew R. *See* **Bartels, Richard H., (82a:90165)**

Cooper, Leon *See* **Katz, I. Norman, (82b:90043)**

Cugiani, M. Some stochastic strategies in optimization problems. **(82a:90133)**

Curry, Guy L. *See* **Hartfiel, D. J., (82b:90099)**

Dempster, M. A. H. (*with* Papagaki-Papoulias, A.) Computational experience with an approximate method for the distribution problem. **(82b:65035)**

Denel, J. Convergence de la méthode du gradient réduit en l'absence de concavité. (English summary) **(82g:90072)**

Derigs, Ulrich *See* **Burkard, Rainer E., (82i:90073)**

Dikin, I. I. (*with* Zorkal'cev, V. I.) ★Итеративное решение задач математического программирования. (Russian) [Iterative solution of mathematical programming problems] **(82a:90135)**

Di Pillo, G. (*with* Grippo, L.; Lampariello, F.) A method for solving equality constrained optimization problems by unconstrained minimization. **(82h:90095)**

Duca, Dorel I. Proper efficiency in the complex vectorial programming. **(82e:90115)**

Dunn, J. C. Global and asymptotic convergence rate estimates for a class of projected gradient processes. **(82i:49027)**

Eremin, I. I. Iteration processes generated by nonstationary Fejér mappings. (Russian) **(82k:90075)**

Fedorov, V. V. *See* **Suharev, A. G., (82j:90068)**

Foltýn, Ivan Primal simplex method with the secondary choice of incoming and outgoing variables based on sparsity-maintaining criteria. (Czech summary) **(82d:90076)**

Foote, B. L. A discussion of the properties of a basic simplex algorithm for generating the decision regions of Bereanu. **(82d:90087)**

Forster, Walter Theorems relating to the approximation of fixed points in function spaces. **(82h:55003)**
A fixed point algorithm for arbitrary regions. **(82h:55002)**

Fujii, Y. *See* **Ichida, K., (82f:65050)**

Fujimoto, Takao Homogeneous programming. **(82a:90114)**

Gander, Walter Least squares with a quadratic constraint. **(82c:65026)**

Gemintern, V. I. (*with* Kagan, B. M.) ★Методы оптимального проектирования. (Russian) [Methods for optimal design] **(82g:49026)**

(Glover, Fred) *See* **Kennington, Jeff L.; et al., (82a:90173)**

Goldstein, A. A. *See* **Chaney, Robin W., (82i:90091)**

Gomulka, J. Decomposition algorithms for smooth unconstrained optimisation problems. **(82d:49028)**
Grandinetti, L. Factorized variable metric algorithms for unconstrained optimization. **(82a:90137)**
Grippo, L. *See* **Di Pillo, G.; et al., (82b:90095)**
Hald, Jørgen (*with* Madsen, Kaj) Combined LP and quasi-Newton methods for minimax optimization. **(82a:90138)**
Hartfiel, D. J. (*with* Curry, Guy L.) On optimizing functions which are defined in part by an approximation process. **(82b:90099)**
Helgason, Richard V. *See* **Kennington, Jeff L., (82a:90173)**
van der Hoek, G. ★Reduction methods in nonlinear programming. **(82d:90107)**
Hornung, Roland Algorithms for the solution of a discrete minimax problem: subgradient methods and a new fast Newton method. **(82a:90117)**
Ichida, K. (*with* Fujii, Y.) An interval arithmetic method for global optimization. (German summary) **(82f:65050)**
Johnson, G. E. (*with* Townsend, M. A.) A generalized direct search acceptable-point technique for use with descent-type multivariate algorithms. **(82b:49044)**
Kagan, B. M. *See* **Gemintern, V. I., (82g:49026)**
Katz, I. Norman (*with* Cooper, Leon) Optimal location on a sphere. **(82b:90043)**
(Katzakidis, G.) *See* **Burkard, Rainer E.; et al., (82i:90073)**
Kennington, Jeff L. (*with* Helgason, Richard V.) ★Algorithms for network programming. **(82a:90173)**
(Klingman, Darwin) *See* **Kennington, Jeff L.; et al., (82a:90173)**
Korablev, A. I. (*with* Mironov, O. V.) An attempt at solution of model problems of minimization by the ε-subgradient method. (Russian) **(82m:90137)**
Kovács, Margit Convergence of the method of generalized barrier functions. (Russian) **(82g:49030)**
Kreĭnin, M. I. On the convergence of subgradient methods for minimizing convex functions. (Russian) **(82a:90119)**
Kuhn, Harold W. On the Shapley-Sperner lemma. **(82b:90101)**
Lampariello, F. *See* **Di Pillo, G.; et al., (82b:90095)**
Madsen, Kaj *See* **Hald, Jørgen, (82a:90138)**
Malivert, Christian Méthode de descente sur un fermé non convexe. **(82a:49036)**
McCormick, Garth P. Locating an isolated global minimizer of a constrained nonconvex program. **(82c:90080)**
McKeown, J. J. Sensitivity analysis with respect to independent variables. **(82a:90158)**
Minaev, Ju. N. *See* **Volkov, A. A., (82m:90123)**
Minkovič, B. M. Optimization of linear, equally spaced, symmetrically excited antenna arrays. (Russian) **(82b:78026)**
Mironov, O. V. *See* **Korablev, A. I., (82m:90137)**
Nurminskiĭ, E. A. On ε-subgradient methods of nondifferentiable optimization. **(82b:49042)**
O'Leary, Dianne Prost A generalized conjugate gradient algorithm for solving a class of quadratic programming problems. **(82e:90076)**
Papagaki-Papoulias, A. *See* **Dempster, M. A. H., (82b:65035)**
Pappas, M. Improved methods for large scale structural synthesis. **(82h:73069)**
Ponomarenko, V. S. Solution of a class of mathematical programming problems using the group method of data handling (GMDH). **(82k:90103)**
Richter, Claus Über Einbettungsverfahren der nichtlinearen Optimierung. **(82f:49037)**
Ritter, Klaus *See* **Best, M. J.; et al., (82j:90063)**
Robinson, Stephen M. *See* **Best, M. J.; et al., (82j:90063)**
Ross, G. J. S. Uses of nonlinear transformation in nonlinear optimisation problems. **(82a:90147)**
Rževskiĭ, S. V. A unified approach to the solution of unconditional minimization problems. (Russian) **(82e:90083)**
Schagen, I. P. Stochastic interpolation applied to the optimisation of expensive objective functions. **(82a:90149)**
Stochastic interpolating functions—applications in optimization. **(82c:65006)**
Schittkowski, Klaus A numerical comparison of 13 nonlinear programming codes with randomly generated test problems. **(82i:90100)**
Spedicato, Emilio *See* **Bertocchi, M.; et al., (82i:90090)**
Suharev, A. G. (*with* Fedorov, V. V.) Optimal search for the maximum of a minimum function with connected variables. (Russian) **(82j:90068)**
Sutti, C. Superlinear convergence of Sutti's nongradient minimization algorithm. **(82i:90101)**
Szegö, G. P. *See* **Archetti, Francesco, (82a:90129)**
Tapia, R. A. On the role of slack variables in quasi-Newton methods for constrained optimization. **(82i:90102)**
Townsend, M. A. *See* **Johnson, G. E., (82b:49044)**
Volkov, A. A. (*with* Minaev, Ju. N.) Use of the heuristic self-organization principle in synthesizing solution algorithms for optimization problems in computer systems. **(82m:90123)**
Vujčić, V. V. Some properties of feasible directions methods. **(82i:90104)**
Wang, Chung Lie A generalization of the HGA inequalities. **(82i:26013)**
Winkels, Heinz-Michael ★Die Bestimmung aller Lösungen eines linearen Restriktionssystems und Anwendungen. (German) [The determination of all solutions to a linear restriction system and applications] **(82c:90056)**
Zak, Ju. O. Computational schemes for sequential optimization algorithms. **(82m:90144)**
Zang, Israel A smoothing-out technique for min-max optimization. **(82c:90085)**
Zorkal'cev, V. I. *See* **Dikin, I. I., (82a:90135)**

65K10 Optimization and variational techniques

Batiščev, D. I. (*with* Vasin, Ju. G.) Interaction systems in problems of optimization and classification. (Russian) (*See* **82f:90002**)
Casti, John L. Computer codes and optimal control theory. (*See* **82b:65074**)
Chou, F. S. *See* **Sirisena, H. R., 82h:65046**
Elfving, Tommy On some methods for entropy maximization and matrix scaling. **82c:65039**
Gens, G. V. (*with* Levner, E. V.) Discrete optimization problems and efficient approximate algorithms (a survey). **82e:65076**
Lbov, G. S. Algorithm of search for global extremum of function from variables measured in different scales. **82a:65044**
Levner, E. V. *See* **Gens, G. V., 82e:65076**
Lions, Pierre-Louis (*with* Mercier, Bertrand) Approximation numérique des équations de Hamilton-Jacobi-Bellman. (English summary) **82b:65055**
Mercier, Bertrand *See* **Lions, Pierre-Louis, 82b:65055**
Mihlin, S. G. Error of the approximate solution of one-sided variational problems. (Russian. English summary) **82f:65070**
Mittelmann, Hans-Detlef On the efficient solution of nonlinear finite element equations. II. Bound-constrained problems. **82j:65043**
Nedeljković, Nikola B. New algorithms for unconstrained nonlinear optimal control problems. **82m:65057**
Radvilavičiūtė, Janina *See* **Šaltenis, Vydūnas, 82c:65040**
Resta, G. A set of necessary and sufficient conditions for the convergence of minimization algorithms. (Italian summary) **82k:65037**
Ritter, Klaus Local and superlinear convergence of a class of variable metric methods. (German summary) **82f:65071**
Global and superlinear convergence of a class of variable metric methods. **82d:65054**
Rustem, B. (*with* Zarrop, M. B.) A Newton-type method for the optimization and control of nonlinear econometric models. **82d:65055**
Salane, D. (*with* Tewarson, R. P.) On symmetric minimum norm updates. **82e:65077**
Šaltenis, Vydūnas (*with* Radvilavičiūtė, Janina) Investigation of an algorithm for the separation of essential variables. (Russian. Lithuanian and English summaries) **82c:65040**
Sirisena, H. R. (*with* Chou, F. S.) State parameterization approach to the solution of optimal control problems. **82h:65046**
Sloboda, Fridrich A generalized conjugate gradient algorithm for minimization. **82c:65041**
Spedicato, Emilio Variable metric methods for unconstrained minimization. **82a:65045**
Tewarson, R. P. *See* **Salane, D., 82e:65077**
Vasin, Ju. G. *See* **Batiščev, D. I., (*See* 82f:90002)**
Weinelt, W. Net approximation of variational inequalities. (Russian) **82b:65056**
Zarrop, M. B. *See* **Rustem, B., 82d:65055**

secondary classifications:

Ahn, B. H. Solution of nonsymmetric linear complementarity problems by iterative methods. **(82e:90106)**
Alfeld, Peter Fixed point iteration with inexact function values. **(82m:65048)**
Bagrova, L. N. (*with* Beloborodova, E. A.; Klement'ev, A. F.) A numerical method for determining filtration parameters. (Russian) (*See* **82b:76001**)
Beloborodova, E. A. *See* **Bagrova, L. N.; et al., (*See* 82b:76001)**
Bermúdez de Castro López, A. (*with* Moreno Gonzalez, Carlos Antonio) Duality methods for solving variational inequalities. **(82e:49016)**
Bouchitté, Guy Résolution numérique d'un problème d'optimisation intégro-différentielle dans le cas de lois de comportement exponentiel et logarithmique. **(82b:49019)**
Brindle, Anne *See* **Sampson, Jeffrey, (82c:92016)**
Bùi Thê Tâm Modified Lagrange functions and a method for finding roots of monotone mappings. (Russian) **(82d:90103)**
Ch'ên, Chün Hsiung (*with* Lien, Ts'un Tê) A variational numerical solution of the one-dimensional wave propagation problem for an inhomogeneous medium. (Chinese summary) **(82d:78016)**
Čičinadze, V. K. Solving dynamic optimal problems by the Ψ-transformation method. **(82d:49029)**
Cohen, Gérard Auxiliary problem principle and decomposition of optimization problems. **(82k:90088)**
Cypkin, Ja. Z. *See* **Poljak, B. T., (82h:90082)**
Dixon, L. C. W. (*with* Szegő, G. P.) The numerical optimisation of dynamic systems: a survey. **(82h:49019)**
Dunn, J. C. Convergence rates for conditional gradient sequences generated by implicit step length rules. **(82i:49026)**
Engles, Charles R. Economic equilibrium under deformation of the economy. **(82d:90028)**
Eslami, Mansour (*with* Marleau, R. S.) On trajectory sensitivity minimization with an adaptive controller. **(82e:93051)**
Finin, G. S. *See* **Valeev, K. G., (82c:49031)**
Forsyth, P., Jr. (*with* Rasmussen, H.) Comparison of variational inequality and front-tracking solution of an electrochemical machining problem. **(82h:78028)**
Gavrikov, A. I. *See* **Slugin, S. N., (82e:65073)**
Ghalib, M. A. (*with* Makky, S. M.) Minimum deflection under dynamic loading. (Arabic summary) **(82k:73060)**
Gruver, W. A. (*with* Sachs, Ekkehard) ★Algorithmic methods in optimal control. **(82j:49029)**
Gyurkovics, Éva (*with* Võrös, T.) On a computational method of the time-optimal control problem. **(82f:49033)**
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Ismuhametov, A. Z. (*with* Potapov, M. M.) On the concordance of a regularization parameter with a step of difference mesh. (Russian) **(82m:49043)**
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65L20 Stability of numerical methods

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65M10 Stability and convergence of difference methods

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65M20 Method of lines

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secondary classifications:

Bardos, Claude (*with* Bercovier, Michel; Pironneau, Olivier) The vortex method with finite elements. **(82c:65066)**
Bercovier, Michel *See* **Bardos, Claude; et al., (82c:65066)**
Bulgarelli, U. (*with* Casulli, Vincenzo; Greenspan, Donald) On numerical treatment of free surfaces for incompressible fluid-flow problems. **(82a:76022)**
Casulli, Vincenzo *See* **Bulgarelli, U.; et al., (82a:76022)**
Edenhofer, J. (*with* Schmitz, G.) Ein implizites Charakteristikenverfahren zur Lösung von Anfangsrandwertaufgaben bei hyperbolischen Systemen und seine Konvergenz. (English summary) **(82f:65126)**
Greenspan, Donald *See* **Bulgarelli, U.; et al., (82a:76022)**
Lee, Ding (*with* Papadakis, John S.) Numerical solutions of the parabolic wave equation: an ordinary-differential-equation approach. **(82a:76069)**
Papadakis, John S. *See* **Lee, Ding, (82a:76069)**
Pironneau, Olivier *See* **Bardos, Claude; et al., (82c:65066)**
Schmitz, G. *See* **Edenhofer, J., (82f:65126)**

65M30 Improperly posed problems

Bertero, M. (*with* de Mol, Ch.; Viano, G. A.) The stability of inverse problems. **82j:65068**
de Mol, Ch. *See* **Bertero, M.; et al., 82j:65068**
Viano, G. A. *See* **Bertero, M.; et al., 82j:65068**

secondary classifications:

Gorbaĭcuk, V. I. Estimates of the accuracy of an approximate solution for the Cauchy problem for the Laplace equation in an infinite strip. (Russian) **(82e:35079)**
Han, Hou De The finite element method in the family of improperly posed problems. **(82m:65091)**

65M50 Mesh generation and refinement

65M60 Finite elements, Rayleigh-Ritz and Galerkin methods, finite methods

Archer, David (*with* Díaz, Julio César) A collocation-Galerkin method for a first order hyperbolic equation with space and time dependent coefficient. **82m:65086**
Arnold, Douglas N. (*with* Winther, Ragnar) A superconvergent finite element method for the Korteweg-de Vries equation. **82m:65087**
Balasubramanian, R. *See* **El-Zorkany, H. I., 82m:65090**
Barrett, J. W. (*with* Morton, K. W.) Optimal Petrov-Galerkin methods through approximate symmetrization. **82m:65088**
Berzins, M. (*with* Dew, P. M.) A generalized Chebyshev method for nonlinear parabolic equations in one space variable. **82m:65089**
Carey, Graham F. *See* **Sepehrnoori, K., 82h:65071**
Davis, Stephen F. An adaptive finite element method for initial-boundary value problems. (*See* **82k:00010**)
Dew, P. M. *See* **Berzins, M., 82m:65089**
Díaz, Julio César *See* **Archer, David, 82m:65086**
El-Zorkany, H. I. (*with* Balasubramanian, R.) Hybrid computer solution of pde's using Laplace-modified Galerkin approximation. **82m:65090**
Han, Hou De The finite element method in the family of improperly posed problems. **82m:65091**
Hayes, Linda J. A modified backward time discretization for nonlinear parabolic equations using patch approximations. **82h:65069**
Holnicki, Piotr On L^2-estimates for discrete-time Galerkin approximation to second order hyperbolic equations. **82i:65059**
Huang, Ming You (*with* Thomée, Vidar) Some convergence estimates for semidiscrete type schemes for time-dependent nonselfadjoint parabolic equations. **82i:65060**
Morton, K. W. *See* **Barrett, J. W., 82m:65088**
Neittaanmäki, Pekka (*with* Saranen, Jukka) A mixed finite element method for the heat flow problem. **82m:65092**
(*with* Saranen, Jukka) Semidiscrete Galerkin approximation method applied to initial-boundary value problems for Maxwell's equations in anisotropic, inhomogeneous media. **82h:65070**
Saranen, Jukka *See* **Neittaanmäki, Pekka, 82h:65070** *and* **82m:65092**
Sepehrnoori, K. (*with* Carey, Graham F.) Numerical integration of semidiscrete evolution systems. **82h:65071**
Thomée, Vidar *See* **Huang, Ming You, 82i:65060**
Winther, Ragnar *See* **Arnold, Douglas N., 82m:65087**

secondary classifications:

Hayes, Linda J. Implementation of finite element alternating-direction methods on nonrectangular regions. **(82k:65015)**
Practical stability test for finite elements with reduced integration. **(82k:65063)**
Mathon, Rudolf A. *See* **Sermer, Pavol, (82k:65070)**
Neuman, Shlomo P. An Eulerian-Lagrangian numerical scheme for the dispersion-convection equation using conjugate space-time grids. **(82m:86001)**
Sermer, Pavol (*with* Mathon, Rudolf A.) Least-squares methods for mixed-type equations. **(82k:65070)**

65M99 None of the above, but in this section

Bayliss, Alvin (*with* Turkel, Eli) Radiation boundary conditions for wave-like equations. **82b:65091**
Bona, Jerry L. (*with* Pritchard, W. G.; Scott, L. R.) A posteriori error estimates for exact and approximate solutions of time-dependent problems. **82c:65059**
Ch'oe, Yŏng Ho An approximate method of solution for a nonlinear system of differential equations with retarded argument using upper and lower functional series. (Korean. English summary) **82i:65061**
Day, J. D. *See* **Murthy, D. N. P.; et al., 82m:65093**
Duchon, Jean (*with* Robert, Raoul; Witomski, Patrick) Problème de Dirichlet dans l'image bilipschitzienne d'un demi-espace. (English summary) **82e:65096**
Evans, David J. *See* **Murphy, C. P., 82i:65063**
Furzeland, R. M. A comparative study of numerical methods for moving boundary problems. **82a:65071**
Hackbusch, Wolfgang Fast numerical solution of time-periodic parabolic problems by a multigrid method. **82f:65100**
Huntley, E. *See* **Zinober, A. S. I., 82b:65093**
Janac, Karel Absolutely stable method for partial differential equations that do not require matrix inversions. (*See* **82k:68003**)
Lawson, P. A. Contraction mapping techniques applied to the hybrid computer solution of parabolic pde's. **82i:65062**
Marinec', T. Ĭ Acceleration of the convergence of iteration processes for the approximate integration of partial differential equations given in an implicit form. (Russian. English summary) **82h:65092**
Murphy, C. P. (*with* Evans, David J.) Chebyshev series solution of the two-dimensional heat equation. **82i:65063**
Murthy, D. N. P. (*with* Day, J. D.; Webb, I. R.) A note on the stability of CSDT methods for solving parabolic equations. **82m:65093**
See also **Webb, I. R., 82m:65094**
Pritchard, W. G. *See* **Bona, Jerry L.; et al., 82c:65059**
Robert, Raoul *See* **Duchon, Jean; et al., 82e:65096**
Scott, L. R. *See* **Bona, Jerry L.; et al., 82c:65059**
Shen, C. N. Method of solution for variational principle using bicubic Hermite polynomial. (*See* **82k:00010**)
Turkel, Eli *See* **Bayliss, Alvin, 82b:65091**
Webb, I. R. (*with* Murthy, D. N. P.) Higher order Runge-Kutta type CSDT methods for solving parabolic equations. **82m:65094**
See also **Murthy, D. N. P.; et al., 82m:65093**
Witomski, Patrick *See* **Duchon, Jean; et al., 82e:65096**
Zinober, A. S. I. (*with* Huntley, E.) The numerical solution of linear time-dependent partial differential equations by the Laplace transform and finite difference approximations. **82b:65093**

secondary classifications:

Baker, Gregory R. A test of the method of Fink & Soh for following vortex-sheet motion. **(82e:76020)**
Bauch, Hartmut On the iterative inclusion of solutions in characteristic initial value problems with hyperbolic differential equation $z_{st}=f(s,t,z)$. (German summary) **(82e:65049)**
Bezdetnyĭ, B. P. (*with* Gluščenko, A. A.) Numerical-analytic solution of problems of steady-state convective diffusion. (Russian) **(82c:80004)**
Čebotarev, A. M. *See* **Maslov, V. P., (82c:81044)**
Council, Francis E., Jr. A technique for synthesizing the motions of a flat plate foundation during an earthquake. **(82c:73020)**
van Dommelen, L. L. (*with* Shen, S. F.) The spontaneous generation of the singularity in a separating laminar boundary layer. **(82c:76043)**
Dyksen, Wayne R. *See* **Rice, John R.; et al., (82c:65083)**
Franke, Richard (*with* Salinas, David) An efficient method for solving stiff transient field problems arising from FEM formulations. **(82e:65107)**
Gluščenko, A. A. *See* **Bezdetnyĭ, B. P., (82c:80004)**
Houstis, Elias N. *See* **Rice, John R.; et al., (82c:65083)**
van der Houwen, P. J. Modified Nyström methods for semidiscrete hyperbolic differential equations. **(82k:65039)**
Laval, Pierre Une classe de schémas explicites de désintégration pour les systèmes hyperboliques non linéaires conservatifs. (English summary) **(82a:76012)**
Schémas de désintégration explicites du second ordre donnant des profils de choc sans oscillation. (English summary) [Explicit second-order splitting up schemes yielding nonoscillating solutions for steady/unsteady shock problems] **(82k:76047)**
Maslov, V. P. (*with* Čebotarev, A. M.) On Monte Carlo calculation of the Feynman path integral. **(82c:81044)**
Nogi, Tatsuo A difference scheme for solving two-phase Stefan problem of heat equation. **(82d:65082)**
Rice, John R. (*with* Houstis, Elias N.; Dyksen, Wayne R.) A population of linear, second order, elliptic partial differential equations on rectangular domains. I, II. **(82c:65083)**
Sabonnadière, J. C. Numerical analysis of eddy-current problems. **(82k:78029)**
Salinas, David *See* **Franke, Richard, (82e:65107)**
Shen, S. F. *See* **van Dommelen, L. L., (82c:76043)**
Streit, Uwe Zur iterativen Lösung nichtlinearer Differenzenschemata für eindimensionale Stefan-Aufgaben. **(82b:80015)**
Temčin, A. N. On the Cauchy problem for Einstein equations. (Russian) **(82g:83001a)**
On the Cauchy problem for Einstein equations. II. (Russian) **(82g:83001b)**
Žestkov, S. V. A constructive algorithm for solution of the Cauchy problem for first-order linear partial differential equations. (Russian. English summary) **(82g:58013)**

65Nxx Partial differential equations, boundary value problems

secondary classifications:

Hlaváček, Ivan *See* **Nečas, Jindřich, (82b:73002)**
Nečas, Jindřich (*with* Hlaváček, Ivan) ★Mathematical theory of elastic and elasto-plastic bodies: an introduction. **(82b:73002)**

65N05 Derivation of finite difference approximations

Adams, Ernst (*with* Ames, W. F.) Contracting interval iteration for a class of nonlinear parabolic partial differential equations. (*See* **82a:65005**)
Agrawal, A. K. *See* **Peckover, R. S., 82a:65073**
Ames, W. F. *See* **Adams, Ernst, (*See* 82a:65005)**
Andreev, V. B. Grid approximations of nonsmooth solutions of differential equations. (Russian) **82g:65051**
Babenko, K. I. (*with* Ivanova, V. N.; Kosorukov, A. L.; Radvogin, Ju. B.) Supersonic flow around smooth bodies with regard for chemical reactions that are not in equilibrium. (Russian) **82j:65069**
Böhmer, Klaus Error asymptotics for linear elliptic boundary value problems on general domains. **82b:65094**
Asymptotic expansion for the discretization error in linear elliptic boundary value problems on general regions. **82d:65064**
Boisvert, Ronald F. High order discretizations of the Helmholtz problem which admit iterative solution techniques. **82b:65095**
Families of high order accurate discretizations of some elliptic problems. **82m:65095**
Chen, Bing Mu *See* **Zhu, You Lan; et al., 82j:65070**
Dennis, S. C. R. (*with* Hudson, J. D.) Further accurate representations of partial differential equations by finite-difference methods. **82e:65097**
Deville, Michel *See* **Mercier, Philippe, 82i:65064**
Fedotov, E. M. *See* **Karčevskiĭ, M. M., 82c:65098**
Ganimedov, V. L. *See* **Vetluckiĭ, V. N., 82a:65075**
Giese, John H. (*with* Khalil, Hatem M.; Ulery, Dana L.) A general algorithm for generating families of difference approximations to linear partial differential equations. (*See* **82a:65004**)
Gorenflo, Rudolf (*with* Niedack, Marianne) Conservative difference schemes for diffusion problems with boundary and interface conditions. (German summary) **82f:65101**
Gourlay, A. R. Recent developments of the hopscotch method. **82b:65096**
Hudson, J. D. *See* **Dennis, S. C. R., 82e:65097**
Ivanova, V. N. *See* **Babenko, K. I.; et al., 82j:65069**
Iyengar, S. R. K. *See* **Jain, M. K.; et al., 82d:65065**
Jain, M. K. (*with* Iyengar, S. R. K.; Lone, A. G.) Multilevel difference schemes for the heat conduction equation and its application to the Dirichlet problem in two and three dimensions. **82d:65065**
Karčevskiĭ, M. M. (*with* Fedotov, E. M.) Iteration methods of solution of difference schemes for the heat equation with nonlinear boundary conditions. (Russian) **82c:65098**
Khalil, Hatem M. *See* **Giese, John H.; et al., (*See* 82a:65004)**
Kosorukov, A. L. *See* **Babenko, K. I.; et al., 82j:65069**
Kriegsmann, Gregory A. (*with* Morawetz, Cathleen Synge) Solving the Helmholtz equation for exterior problems with variable index of refraction. I. **82b:65097**
Lone, A. G. *See* **Jain, M. K.; et al., 82d:65065**
Mercier, Philippe (*with* Deville, Michel) A multidimensional compact higher-order scheme for 3-D Poisson's equation. **82i:65064**
Morawetz, Cathleen Synge *See* **Kriegsmann, Gregory A., 82b:65097**
Müller, Claus Neue Verfahren zur Lösung der elliptischen Randwertprobleme der Mathematischen Physik. **82a:65072**
Munz, Harry Uniform expansions for a class of finite difference schemes for elliptic boundary value problems. **82b:65098**
Naždestkina, È. I. *See* **Rusanov, V. V., 82e:65099**
Niedack, Marianne *See* **Gorenflo, Rudolf, 82f:65101**
Pavlova, M. F. An iteration method of realization of an implicit difference scheme for two-dimensional filtration problems with variable gradient. (Russian) (*See* **82b:76001**)
Peckover, R. S. (*with* Agrawal, A. K.) Coordinate transformation methods for boundary layers in arbitrary geometries. **82a:65073**
Qin, Bo Liang *See* **Zhu, You Lan; et al., 82j:65070**
Radvogin, Ju. B. *See* **Babenko, K. I.; et al., 82j:65069**
Rusanov, V. V. (*with* Naždestkina, È. I.) Difference approximation near the boundary for hyperbolic systems of quasilinear equations. (Russian. English summary) **82e:65099**
Sommeijer, B. P. (*with* Verwer, J. G.) ★A performance evaluation of a class of Runge-Kutta-Chebyshev methods for solving semidiscrete parabolic differential equations. **82a:65074**
Song, Ch'ang Ho Numerical solution to one-dimensional heat conduction problem with radiant heat exchange. (Korean. English summary) **82b:65099**
Šul'ce, M. Difference schemes for a quasilinear heat equation. (Russian) **82b:65100**
Ulery, Dana L. *See* **Giese, John H.; et al., (*See* 82a:65004)**
Verwer, J. G. *See* **Sommeijer, B. P., 82a:65074**
Vetluckiĭ, V. N. (*with* Ganimedov, V. L.) Calculation of the laminar boundary layer on an acute elliptic cone. (Russian) **82a:65075**
Vitjuk, A. N. Solvability and the difference method for solving a boundary value problem for a system of differential equations of hyperbolic type. (Russian) **82c:65060**
Wang, Jia Ye A kind of difference method for solving nonlinear parabolic partial differential equations. (Chinese) **82g:65052**
Želtuhin, V. S. An iteration method for solving the Dirichlet problem for a biharmonic equation in polar coordinates. (Russian) (*See* **82b:76001**)
Zhang, Guan Quan *See* **Zhu, You Lan; et al., 82j:65070**
Zhang, Zuo Min *See* **Zhu, You Lan; et al., 82j:65070**
Zhong, Xi Chang *See* **Zhu, You Lan; et al., 82j:65070**
Zhu, You Lan (*with* Chen, Bing Mu; Zhang, Zuo Min; Zhong, Xi Chang; Qin, Bo Liang; Zhang, Guan Quan) Difference schemes for initial-boundary value problems of hyperbolic systems and examples of application. **82j:65070**

secondary classifications:

Antomoni, V. I. A method of numerical analysis of nonlinear oscillations of plates and shallow shells using implicit difference schemes. (Russian) **82k:73056**
Bramble, James H. Multistep methods for quasilinear parabolic equations. **(82b:65079)**
Favorskiĭ, A. P. *See* **Koršija, T. K.; et al., (82a:78005)**
Ghosh, A. *See* **Mastin, C. W.; et al., (82c:76032)**
Griffiths, D. F. *See* **Mitchell, Andrew Ronald, (82a:65002)**
Israeli, Moshe *See* **Neishlos, H.; et al., (82j:73041)**
Kaspar, W. (*with* Remke, R.) Die numerische Behandlung der Poisson-Gleichung auf einem Gebiet mit einspringenden Ecken. (English summary) **(82j:65074)**
Kivity, Y. *See* **Neishlos, H.; et al., (82j:73041)**
Koršija, T. K. (*with* Tiškin, V. F.; Favorskiĭ, A. P.; Šaškov, M. Ju.) Variational-flux difference schemes for the calculation of magnetic field diffusion. (Russian) **(82a:78005)**
Lagakos, S. W. The graphical evaluation of explanatory variables in proportional hazard regression models. **(82j:62050)**
Mastin, C. W. (*with* Ghosh, A.; Thompson, J. F.) A fractional step method for the solution of the Navier-Stokes equations in arbitrary three-dimensional regions. **(82c:76032)**
Mitchell, Andrew Ronald (*with* Griffiths, D. F.) ★The finite difference method in partial differential equations. **(82a:65002)**
Neishlos, H. (*with* Israeli, Moshe; Kivity, Y.) Stability of some explicit difference schemes for fluid-structure interaction problems. **(82j:73041)**
Neuberger, John W. A type-independent iterative method for systems of nonlinear partial differential equations: application to the problem of transonic flow. **(82d:76059)**
Pinder, George F. *See* **Tang, D. H., (82b:65083)**
Remke, R. *See* **Kaspar, W., (82j:65074)**
Sapagovas, Mifodijus (*with* Sapagovienė, D.) Some numerical results on the solution of nonlinear and nonselfadjoint problems by the alternatively triangular method. (Russian. Lithuanian and English summaries) **(82c:65062)**
Sapagovienė, D. *See* **Sapagovas, Mifodijus, (82c:65062)**
Šaškov, M. Ju. *See* **Koršija, T. K.; et al., (82a:78005)**
Schippers, H. Multiple grid methods for oscillating disk flow. **(82a:76025)**
Tang, D. H. (*with* Pinder, George F.) A new algorithm for the numerical solution of nonlinear parabolic partial differential equations. **(82b:65083)**
Thompson, J. F. *See* **Mastin, C. W.; et al., (82c:76032)**
Tiškin, V. F. *See* **Koršija, T. K.; et al., (82a:78005)**

65N10 Stability and convergence of difference methods

Bjašimov, I. On a numerical solution of a singular boundary value problem. (Russian) **82a:65076**
Borisova, V. I. On a numerical solution of a nonlinear problem of the hydraulic theory of filtration. (Russian. Tajiki summary) **82i:65065**
Dosiev, A. A. *See* **Gafarov, Dž. N., 82a:65077**
Drenska, N. T. Properties of difference schemes for the problem of cooling metal in a mold. (Russian) **82b:65101**
Gafarov, Dž. N. (*with* Dosiev, A. A.) Some remarks on the numerical solution of the Tricomi problem for an equation of mixed type. (Russian. Azerbaijani and English summaries) **82a:65077**
Galba, Ē. F. *See* **Molčanov, Ī. M., (*See* 82i:65002)**
Glashoff, Klaus (*with* Kreth, Horst) Vorzeichenstabile Differenzenverfahren für parabolische Anfangsrandwertaufgaben. (English summary) **82b:65102**
Glušenkov, V. D. Difference schemes for quasilinear elliptic equations in elliptic coordinates. (Russian) **82j:65071**
Hackbusch, Wolfgang Survey of convergence proofs for multigrid iterations. **82j:65072**
Jamet, Pierre Stability and convergence of a generalized Crank-Nicolson scheme on a variable mesh for the heat equation. **82j:65073**
Kaspar, W. (*with* Remke, R.) Die numerische Behandlung der Poisson-Gleichung auf einem Gebiet mit einspringenden Ecken. (English summary) **82j:65074**
Koßmann, Heinz Numerische Lösung des ersten und vierten parabolischen Randwertproblems mit Hilfe der Randwerttechnik. **82c:65061**
Kowalski, Z. A difference method for a nonlinear system of elliptic equations with mixed derivatives. **82b:65103**
Kreth, Horst *See* **Glashoff, Klaus, 82b:65102**
Medvedev, V. B. Convergence of difference schemes for a system of fourth-order partial differential equations. (Russian) **82j:65075**
Merten, K. Asymptotisch optimale Relaxationsparameter bei nichtlinearen SOR-Verfahren (Newton-SOR-Verfahren). (English summary) **82f:65102**
Molčanov, Ī. M. (*with* Galba, Ē. F.) Solution by the alternate-triangular method of a difference problem for a fourth-order equation. (Russian) (*See* **82i:65002**)
Remke, R. *See* **Kaspar, W., 82j:65074**
Sapagovas, Mifodijus (*with* Sapagovienė, D.) Some numerical results on the solution of nonlinear and nonselfadjoint problems by the alternatively triangular method. (Russian. Lithuanian and English summaries) **82c:65062**
Sapagovienė, D. *See* **Sapagovas, Mifodijus, 82c:65062**
Smirnov, Ju. B. Investigation of difference schemes for quasilinear degenerate parabolic equations. (Russian) **82b:65104**
Tabata, Masahisa Approximations monotones de problèmes de perturbations singulières. (English summary) **82d:65066**
Viznjuk, G. Ī. The alternate-triangular method for the solution of a system of two fourth-order differential equations. (Russian) (*See* **82i:65002**)
Žadaeva, N. G. Convergence of the grid method in the solution of nonlinear nonstationary problems. (Russian) **82f:65103**

secondary classifications:

Benazeth, J. C. *See* **Paillard, L.,** (*See* **82g:80001**)
Briley, W. R. (*with* McDonald, H.) On the structure and use of linearized block implicit schemes. (**82a:65066**)
Chen, Bing Mu *See* **Zhu, You Lan; et al.,** (**82j:65070**)
Denisov, V. N. On a necessary condition for uniform stabilization of the solution to the Cauchy problem for the heat equation. (Russian) (**82c:35032**)
Duffy, D. J. Uniformly convergent difference schemes for the convection-diffusion equation. (**82d:80011**)
Fong, Fred Ku (*with* Skidmore, Duane R.) Combined ADI iteration and implicit central difference numerical method for solving nonlinear conjugated partial differential equations with moving boundary heat transfer in in-situ coal liquefaction. (**82c:80007**)
Glimm, James (*with* Marchesin, Dan; McBryan, Oliver A.) A numerical method for two phase flow with an unstable interface. (**82c:76098**)
Gresho, Philip M. (*with* Lee, Robert L.) Don't suppress the wiggles—they're telling you something! (**82j:76003**)
Hackbusch, Wolfgang Error analysis of the nonlinear multigrid method of the second kind. (Czech summary) (**82b:65161**)
Janovský, Vladimír (*with* Procházka, Petr) Contact problem of two elastic bodies. I, II, III. (Russian and Slovak summaries) (**82b:73053**)
Karčevskiĭ, M. M. *See* **Vološanovskaja, S. N.; et al.,** (**82c:73049**)
Khosla, P. K. *See* **Rubin, S. G.,** (**82h:76019a**)
Klykov, V. E. (*with* Kulagin, V. L.; Morozov, V. A.) The Stefan-type problem occurring in the investigation of salt dissolution and transport process in soil. (**82f:35095**)
Kobel'kov, G. M. Solution of the problem of steady-state free convection. (Russian) (**82b:76054**)
Kulagin, V. L. *See* **Klykov, V. E.; et al.,** (**82f:35095**)
Kuropatenko, V. F. Accuracy of the computation of entropy in difference schemes for equations of gas dynamics. (Russian) (**82b:76041**)
Lavrent'ev, M. M., Jr. Properties of approximate solutions of nonlinear equations of variable type. (Russian) (**82c:35047**)
Lee, Robert L. *See* **Gresho, Philip M.,** (**82j:76003**)
Ljaško, A. D. *See* **Vološanovskaja, S. N.; et al.,** (**82c:73049**)
Makarov, V. L. *See* **Voĭcehovskiĭ, S. A.,** (**82f:65107**)
Marchesin, Dan *See* **Glimm, James; et al.,** (**82c:76098**)
McBryan, Oliver A. *See* **Glimm, James; et al.,** (**82c:76098**)
McDonald, H. *See* **Briley, W. R.,** (**82a:65066**)
Morozov, V. A. *See* **Klykov, V. E.; et al.,** (**82f:35095**)
Paillard, L. (*with* Benazeth, J. C.) A "donor-element" method for convective heat transfer analysis. (*See* **82g:80001**)
Procházka, Petr *See* **Janovský, Vladimír,** (**82b:73053**)
Qin, Bo Liang *See* **Zhu, You Lan; et al.,** (**82j:65070**)
Rubin, S. G. (*with* Khosla, P. K.) Navier-Stokes calculations with a coupled strongly implicit method. I. Finite-difference solutions. (**82h:76019a**)
Segal, A. On upwind discretizations of the convection diffusion equations. (**82c:76093**)
Serdjukova, S. I. On the attainability of minimal order of error in the integration of hyperbolic equations by the finite difference method in a uniform metric. (Russian) (**82j:65067**)
Skidmore, Duane R. *See* **Fong, Fred Ku,** (**82c:80007**)
Voĭcehovskiĭ, S. A. (*with* Makarov, V. L.) Estimation of the rate of convergence of difference schemes in eigenvalue problems for convex domains. (Russian) (**82f:65107**)
Vološanovskaja, S. N. (*with* Karčevskiĭ, M. M.; Ljaško, A. D.) Difference schemes for some problems of physically and geometrically nonlinear bending of plates. (Russian) (**82c:73049**)
Zhang, Guan Quan *See* **Zhu, You Lan; et al.,** (**82j:65070**)
Zhang, Zuo Min *See* **Zhu, You Lan; et al.,** (**82j:65070**)
Zhong, Xi Chang *See* **Zhu, You Lan; et al.,** (**82j:65070**)
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Amiraliev, G. M. Investigation of some difference schemes for a pseudoparabolic equation. (Russian) **82a:65078**
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65N20 Solution of difference equations [See also 65F10.]

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Havixbeck, D. *See* **Schomberg, H., (82c:78007)**

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Wong, Y. S. Preconditioned conjugate gradient methods for large sparse matrix problems. (*See* **82g:80001**)

65N25 Eigenvalue problems

D'jakonov, E. G. (*with* Orehov, M. Ju.) Minimization of computational work in finding the first eigenvalues of differential operators. (Russian) **82a:65086**

Isaacson, David (*with* Isaacson, Eli; Marchesin, Dan; Paes-Leme, P. J.) Numerical analysis of spectral properties of coupled oscillator Schrödinger operators. I. Single and double well anharmonic oscillators. **82i:65068**

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65N30 Finite elements, Rayleigh-Ritz and Galerkin methods, finite methods

Agaev, G. N. (*with* Gamidov, V. S.) The Galerkin-Petrov method in countably-normed spaces and its application to boundary value problems of elasticity theory. (Russian. Azerbaijani and English summaries) **82e:65105**

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An alternating-direction collocation method for finite element approximations on rectangles. **82b:65124**

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Ardeljan, N. V. Convergence of the successive double sweep method for a difference scheme of one-dimensional magnetic hydrodynamics. (Russian) **82j:65090**
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Vainikko, G. (*with* Uba, P.) A piecewise polynomial approximation to the solution of an integral equation with weakly singular kernel. **82h:65100**

Velev, G. D. (*with* Duškov, P. N.) Approximate solution of a class of singular integro-differential equations. (Russian) **82g:65066**

Voevodin, V. V. (*with* Svešnikov, A. G.; Tyrtyšnikov, E. E.) An effective numerical method for solving an integral equation of the second kind in problems of electrodynamics. (Russian) **82e:65136**

Volk, Wolfgang *See* **Töpfer, Hans-Joachim, 82f:65141**

Wendland, Wolfgang L. On Galerkin collocation methods for integral equations of elliptic boundary value problems. **82f:65142**

Westreich, David (*with* Cahlon, Baruch) Numerical solutions of Volterra integral equations with continuous or discontinuous terms. **82a:65101**

Wolkenfelt, P. H. M. Reducible quadrature methods for Volterra integral equations of the first kind. **82h:65101**

(*with* van der Houwen, P. J.; Baker, Chr. T. H.) Analysis of numerical methods for second kind Volterra equations by imbedding techniques. **82f:65143**

On the numerical stability of reducible quadrature methods for second kind Volterra integral equations. **82k:65085**

See also **van der Houwen, P. J., 82e:65132** *and* **Brunner, H.; et al., 82g:65062**

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Abdullaeva, G. G. (*with* Musaev, B. I.) Regularization of a singular integral along an open contour. (Russian) **82j:45005**)

Abdusatarov, B. B. *See* **Verlan', A. F.; et al., (82k:93068)**

Arnăutu, V. Approximation of an integro-differential equation in a Hilbert space. **(82c:45006)**

Atkinson, K. E. The numerical solution of Laplace's equation in three dimensions. II. **(82m:65098)**

(Banerjee, P. K.) *See* **Developments in boundary element methods, (82f:65005)**

Bechlars, Joerg Weakly singular integral equations—smoothness properties and numerical solution. **(82a:45011)**

Bézine, Gérard Application of similarity to research of new boundary integral equations for plate flexure problems. **(82d:73043)**

Bilenko, V. Ī. *See* **Verlan', A. F.; et al., (82k:93068)**

Bobylëv, A. V. (*with* Potapenko, I. F.; Čujanov, V. A.) Kinetic equations of Landau type as a model of the Boltzmann equation and completely conservative difference schemes. (Russian) **(82i:82036)**

Bownds, John M. (*with* Wood, Bruce) A smoothed projection method for singular, nonlinear Volterra equations. **(82j:45012)**

Bracken, A. J. *See* **Holt, J. N., (82g:92019)**

(Butterfield, R.) *See* **Developments in boundary element methods, (82f:65005)**

Bykov, A. A. A numerical method for solving multidimensional integral equations. (Russian) **(82h:78014)**

See also **Kravcov, V. V., (82c:78017)**

Caprani, Ole (*with* Madsen, Kaj; Rall, Louis B.) Integration of interval functions. **(82e:65050)**

Caron, Armand (*with* Dupuy, M.; Pichot, Ch.) Numerical solution of singular integral equations. Application to the flanged plane waveguide. **(82d:78023)**

Chakrabarti, Aloknath (*with* Williams, W. E.) A note on a singular integral equation. **(82c:45008)**

Chan, C. K. (*with* Lu, P.) On the stability of the solution of Abel's integral equation. **(82i:81132)**

Christensen, Mark J. *See* **Moss, William F., (82b:45007)**

Clements, David L. A boundary integral procedure for the numerical solution of a class of mixed boundary value problems. **(82f:65123)**

Colton, David L. (*with* Kress, Rainer) Iterative methods for solving the exterior Dirichlet problem for the Helmholtz equation with applications to the inverse scattering problem for low frequency acoustic waves. **(82f:65124)**

Čujanov, V. A. *See* **Bobylëv, A. V.; et al., (82i:82036)**

Dudukovič, M. P. *See* **Mills, P. L., (82a:65091)**

Dupuy, M. *See* **Caron, Armand; et al., (82d:78023)**

Elliott, David Integral equations—ninety years on. **(82b:01029)**

Fuglede, Bent On a direct method of integral equations for solving the biharmonic Dirichlet problem. (German and Russian summaries) **(82m:31009)**

Graham, Ivan G. Some application areas for Fredholm integral equations of the second kind. **(82b:45002)**

Grozdev, S. I. Transients in linear systems described by a class of integro-differential equations. (Bulgarian. Russian and English summaries) **(82b:45017)**

Halász, G. (*with* Virág, Tibor) A numerical method for simulation of mass and heat transfer processes. (Russian) **(82b:80006)**

Heise, Ulrich *See* **Müller, C. Harald, (82c:73017)**

Holt, J. N. (*with* Bracken, A. J.) First-kind Fredholm integral equation of liver kinetics: numerical solutions by constrained least squares. **(82g:92019)**

See also **O'Brien, D. M., (82h:65033)**

de Hoog, F. R. Review of Fredholm equations of the first kind. **(82a:45002)**

Ioakimidis, Nikolaos I. (*with* Theocaris, P. S.) The numerical evaluation of a class of generalized stress intensity factors by use of the Lobatto-Jacobi numerical integration rule. (French summary) **(82c:73016)**

A new method for the numerical solution of singular integral equations appearing in crack and other elasticity problems. **(82d:73073)**

Three iterative methods for the numerical determination of stress intensity factors. **(82h:73071)**

Jakovlev, M. N. Estimates of the solutions of systems of linear algebraic equations and their application to investigation of the convergence of the finite-difference method. (Russian) **(82g:65040)**

Jen, Erica (*with* Srivastav, R. P.) Cubic splines and approximate solution of singular integral equations. **(82a:45021)**

Juhanonov, N. N. An integral equation of convolution type containing the complex-conjugate value of the unknown function, and its approximate solution. (Russian. Tajiki summary) **(82c:45010)**

Knauff, Werner (*with* Kress, Rainer) A modified integral equation method for the electric boundary-value problem for the vector Helmholtz equation. **(82d:35039)**

Kolokol'čikov, V. V. Mixed convolution-superposition series in the solution of unstable viscoelasticity integral equations. (Russian) **(82c:73031)**

Kravcov, V. V. (*with* Bykov, A. A.) Numerical solution of multidimensional integral equations by the antenna potential method. (Russian) **(82c:78017)**

Kress, Rainer *See* **Knauff, Werner, (82d:35039)** *and* **Colton, David L., (82f:65124)**

Lifanov, I. K. Ill-posedness and regularization of the numerical solution of singular integral equations of the first kind. (Russian) **(82e:45008)**

On the discrete vortex method for a wing of infinite span and the Prandtl equation for a wing of finite span. (Russian) **(82c:76068)**

Lobo, M. (*with* Sachdev, P. L.) Some direct numerical approaches to the solution of the singular nonlinear transonic integral equation. **(82c:76072)**

Lu, P. *See* **Chan, C. K., (82i:81132)**

Madsen, Kaj *See* **Caprani, Ole; et al., (82e:65050)**

Mastjanica, V. S. *See* **Šeško, M. A., (82c:45009)**

Mihlin, S. G. (*with* Prössdorf, Siegfried) ★Singuläre Integraloperatoren. (German) [Singular integral operators] **(82c:45002)**

Mills, P. L. (*with* Dudukovič, M. P.) Triple series relations solution by the method of weighted residuals. **(82a:65091)**

Moore, Gerald *See* **Spence, A., (82e:65074)**

Moss, William F. (*with* Christensen, Mark J.) Scattering and heat transfer by a strip. **(82b:45007)**

Müller, C. Harald (*with* Heise, Ulrich) Numerical calculation of eigenvalues of integral operators for plane elastostatic boundary value problems. **(82c:73017)**

Musaev, B. I. *See* **Abdullaeva, G. G., (82j:45005)**

O'Brien, D. M. (*with* Holt, J. N.) The extension of generalized cross-validation to a multiparameter class of estimators. **(82h:65033)**

O'Leary, Dianne Prost (*with* Simmons, John A.) A bidiagonalization-regularization procedure for large scale discretizations of ill-posed problems. **(82k:65020)**

Pedas, A. Piecewise linear approximation of the solution of an integral equation with a logarithmic singularity in the kernel. (Russian. English summary) **(82b:45009)**

Pichot, Ch. *See* **Caron, Armand; et al., (82d:78023)**

Popov, V. G. (*with* Tihonenko, M. Ja.) Approximate solution of a singular integral equation with involution. (Russian) (*See* **82g:65004**)

Potapenko, I. F. *See* **Bobylëv, A. V.; et al., (82i:82036)**

Prössdorf, Siegfried (*with* Schmidt, Günter) Notwendige und hinreichende Bedingungen für die Konvergenz des Kollokationsverfahrens bei singulären Integralgleichungen. **(82m:45022)**

See also **Mihlin, S. G., (82c:45002)**

Rall, Louis B. *See* **Caprani, Ole; et al., (82e:65050)**

Ramazanov, S. K. *See* **Semesenko, M. P., (82c:93025)**

Ross, Edward W., Jr. On Volterra integral equations of pulse-convolution type. **(82a:45004)**

Sachdev, P. L. *See* **Lobo, M., (82c:76072)**

Schmidt, Günter *See* **Prössdorf, Siegfried, (82m:45022)**

Seičuk, V. N. *See* **Zolotarevskiĭ, V. A., (82m:45023)**

Semesenko, M. P. (*with* Ramazanov, S. K.) Identification and parameter estimation in complex dynamic systems. **(82c:93025)**

Šeško, M. A. (*with* Mastjanica, V. S.) A solution of a two-dimensional singular integral equation of the first kind. (Russian. English summary) **(82c:45009)**

Two-dimensional singular integral equations of the first kind with Cauchy kernels. (Russian) **(82j:45007)**

Simmons, John A. *See* **O'Leary, Dianne Prost, (82k:65020)**

Spence, A. (*with* Moore, Gerald) A convergence analysis for turning points of nonlinear compact operator equations. **(82e:65074)**

Srivastav, R. P. *See* **Jen, Erica, (82a:45021)**
Stiller, Silke Konvergenzverhalten bei der numerischen Lösung von Randwertproblemen mittels eines Doppelschichtpotential-Ansatzes. (English summary) **(82e:65122)**
Theocaris, P. S. *See* **Ioakimidis, Nikolaos I., (82c:73016)**
Tihonenko, M. Ja. *See* **Popov, V. G., (*See* 82g:65004)**
Tuck, E. O. Application and solution of Cauchy singular integral equations. **(82c:45003)**
Turmatov, T. Application of the Newton-Kantorovič method to the solution of a system of singular integral equations. (Russian) **(82h:45014)**
Ueno, Sueo Cauchy system for Fredholm resolvents with composite displacement kernels. **(82g:45004)**
Ventriglia, F. Numerical investigation of kinetic neuronic equations for one-dimensional neural system. **(82f:92019)**
Verlan', A. F. (*with* Abdusatarov, B. B.; Bilenko, V. Ĭ.) Application of splines for the numerical solution of an integral equation in the signal restoration problem. (Russian. English summary) **(82k:93068)**
Virág, Tibor *See* **Halász, G., (82b:80006)**
van de Vooren, A. I. A numerical investigation of the rolling-up of vortex sheets. **(82a:76021)**
Voznjak, L. S. Application of a projection-iteration analogue of the Newton-Kantorovič method to a nonlinear singular integral equation with a Cauchy kernel. (Russian) **(82h:45007)**
Wardle, Leigh J. The direct boundary integral method for potential theory and elasticity. **(82d:35016)**
Wiener, Klaus Über eine Erweiterung des Batemanschen Verfahrens für Integralgleichungen. **(82m:45005)**
Wildenauer, Peter Ein Abbrechkriterium für einen numerischen Algorithmus. (English summary) **(82f:65027)**
Williams, W. E. *See* **Chakrabarti, Aloknath, (82c:45008)**
Wood, Bruce Observations on the combined recursive collocation and kernel approximation technique for solving Volterra integral equations. **(82d:45019)**
See also **Bownds, John M., (82j:45012)**
Zolotarevskiĭ, V. A. (*with* Sečuk, V. N.) The collocation method of solving singular integral equations defined on a Ljapunov contour of integration. (Russian) **(82m:45023)**
Boundary element methods ★Developments in boundary element methods. 1. **(82f:65005)**
Developments in boundary element methods ★Developments in boundary element methods. 1. **(82f:65005)**

65R99 None of the above, but in this section

secondary classifications:

Fursenko, A. A. *See* **Voĭnovič, P. A.; et al., (82h:76033)**
McCormick, Stephen F. A mesh refinement method for $Ax=\lambda Bx$. **(82d:65070)**
Popov, F. D. *See* **Voĭnovič, P. A.; et al., (82h:76033)**
Voĭnovič, P. A. (*with* Žmakin, A. I.; Popov, F. D.; Fursenko, A. A.) Numerical study of flows of a gas with discontinuities of complex configurations. (Russian) **(82h:76033)**
Žmakin, A. I. *See* **Voĭnovič, P. A.; et al., (82h:76033)**

65S05 Graphical methods

von Golitschek, Manfred Approximating bivariate functions and matrices by nomographic functions. **82f:65144**
Kazangapov, A. N. Methods of nomographic calculations on the basis of special coding. (Russian) **82k:65086**
Constructions of nomograms in a space. (Russian) **82k:65087**

secondary classifications:

Afanas'ev, G. K. (*with* Lebedev, V. I.; Oranskiĭ, A. M.) On the measurement of distance between a point and a given straight line on a plane. (Russian) **(82f:51001)**
Bitay, L. Nomograms for the solutions of a first-order linear differential equation. (Romanian. French summary) **(82h:65047)**
Galajda, Pavel Application of a quadrature-free method to the solution of some functional equations. (Russian) **(82f:65130)**
Hosaka, Mamoru (*with* Kimura, Fumihiko) A theory and methods for three-dimensional free form shape construction. **(82h:53003)**
Kimura, Fumihiko *See* **Hosaka, Mamoru, (82h:53003)**
Lebedev, V. I. *See* **Afanas'ev, G. K.; et al., (82f:51001)**
Matušů, Josef (*with* Novák, Josef) Über eine elementare Fläche. (English, Russian and Czech summaries) **(82e:53007)**
Novák, Josef *See* **Matušů, Josef, (82e:53007)**
Oranskiĭ, A. M. *See* **Afanas'ev, G. K.; et al., (82f:51001)**
Su, Bu Qing On affine invariants of a Bézier curve. (Chinese. English summary) **(82g:51031)**
Szmelter, Jan (*with* Wieczorek, Mieczysław) An improved method for graphic representation of the results of computations of the finite element method. (Polish. English and Russian summaries) **(82a:65093)**
Wieczorek, Mieczysław *See* **Szmelter, Jan, (82a:65093)**

65T05 Harmonic analysis and synthesis

Gutknecht, Martin H. Fast algorithms for the conjugate periodic function. (German summary) **82e:65137**
Környei, I. *See* **Žileĭkin, Ja. M., 82a:65102**
Mersereau, Russell M. (*with* Speake, Theresa C.) A unified treatment of Cooley-Tukey algorithms for the evaluation of the multidimensional DFT. **82h:65102**
Nishimi, Jisho An algorithm for the quick Fourier transform of products of trigonometric polynomials. **82d:65089**
Osgood, Charles F. Approximating convolution products better than the DFT while keeping the FFT. **82i:65083**
Rosser, J. Barkley Fourier transform evaluation. **82e:65138**
Speake, Theresa C. *See* **Mersereau, Russell M., 82h:65102**
Temperton, Clive Very fast real Fourier transforms. **82d:65090**
Wang, Hsuan Heng On vectorizing the fast Fourier transform. **82d:65091**
Weber, Helmut Numerical computation of the Fourier transform using Laguerre functions and the fast Fourier transform. **82e:65095**
Žileĭkin, Ja. M. (*with* Környei, I.) An upper estimate of the error of the approximate computation of the Fourier transform on the classes $D_x^{a,\beta,\gamma}(A,B)$. (Russian. English summary) **82a:65102**

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Arambepola, B. Fast computation of multidimensional discrete Fourier transforms. **(82g:94018)**
Bahrah, L. D. (*with* Litvinov, O. S.) On an effective method for calculating the coefficients of Fourier series of functions of high-directional antenna diagrams. (Russian) **(82c:78022)**
Belyĭ, A. A. (*with* Bovbel, A. I.; Mikulovič, V. I.) Investigation of algorithms of the fast Fourier transform, base 4, with a constant structure. **(82m:65117)**
Benjauthrit, B. *See* **Reed, I. S.; et al., (82h:68051)**
Bovbel, A. I. *See* **Belyĭ, A. A.; et al., (82m:65117)**
Britten, Daniel J. (*with* Lemire, F. W.) A structure theorem for rings supporting a discrete Fourier transform. **(82m:13021)**
Candel, Sébastien M. Algorithmes rapides pour le calcul des transformées de Fourier-Bessel paires et impaires. (English summary) [Fast algorithms for the calculation of even and odd Fourier-Bessel transforms] **(82k:65076)**
Diaconis, Persi Average running time of the fast Fourier transform. **(82f:68046)**
Heute, Ulrich Results of a deterministic analysis of FFT coefficient errors. (German and French summaries) **(82k:65077)**
Keys, R. G. An algorithm for computing the Nth roots of unity in bit-reversed order. **(82a:94012)**
Labasque, Yvon *See* **Laval, Robert, (82e:76055)**
Laval, Robert (*with* Labasque, Yvon) Modèle de propagation par petits fonds. (English summary) **(82e:76055)**
Lawrenson, P. J. (*with* Miller, T. J. E.) Transient solution of the diffusion equation by discrete Fourier transformation. **(82c:78026)**
Lemire, F. W. *See* **Britten, Daniel J., (82m:13021)**
Litvinov, O. S. *See* **Bahrah, L. D., (82c:78022)**
Meinguet, Jean From Dirac distributions to multivariate representation formulas. **(82g:46080)**
Mikulovič, V. I. *See* **Belyĭ, A. A.; et al., (82m:65117)**
Miller, T. J. E. *See* **Lawrenson, P. J., (82c:78026)**
Reed, I. S. (*with* Truong, T. K.; Benjauthrit, B.) Addendum to: "A new hybrid algorithm for computing a fast discrete Fourier transform" [IEEE Trans. Comput. **28** (1979), no. 7, 487–492; MR 80e:68078] by Reed and Truong. **(82h:68051)**
Schempp, Walter Periodic splines and nilpotent harmonic analysis. **(82d:41014)**
Schipp, Ferenc Fast Fourier transform and conditional expectation. **(82a:42008)**
Truong, T. K. *See* **Reed, I. S.; et al., (82h:68051)**

65U05 Numerical methods in probability and statistics

Ahrens, J. H. (*with* Dieter, U.) Sampling from binomial and Poisson distributions: a method with bounded computation times. **82e:65139**
Bailey, William A. Numerical convolutions. **82c:65096**
Baxter, Laurence A. Some remarks on numerical convolution. **82e:65140**
Bohman, Harald Numerical Fourier inversion. **82f:65145**
DiDonato, A. R. (*with* Jarnagin, M. P., Jr.; Hageman, R. K.) Computation of the integral of the bivariate normal distribution over convex polygons. **82c:65097**
Dieter, U. *See* **Ahrens, J. H., 82e:65139**
Donnelly, James H. (*with* Shannon, Robert E.) Analysis of computerized production queueing models. **82a:65103**
Dutter, Rudolf (*with* Huber, Peter J.) Numerical methods for the nonlinear robust regression problem. **82h:65103**
Friedlander, Benjamin *See* **Lee, Daniel T. L.; et al., 82h:65104**
Hageman, R. K. *See* **DiDonato, A. R.; et al., 82c:65097**
Huber, Peter J. *See* **Dutter, Rudolf, 82h:65103**
Jarnagin, M. P., Jr. *See* **DiDonato, A. R.; et al., 82c:65097**
Jefferys, William H. On the method of least squares. II. **82f:65146**
Kinščak, V. I. (*with* Nesterov, A. V.) Method of filtering a function having discontinuities of the first kind by the results of measurements with determination of the value of a jump that is an information parameter. (Russian) **82i:65085b**
Lee, Daniel T. L. (*with* Morf, Martin; Friedlander, Benjamin) Recursive least squares ladder estimation algorithms. **82h:65104**
Lux, I. Another special method to sample probability density functions. (German summary) **82e:65141**
McConalogue, Denis J. Numerical treatment of convolution integrals involving distributions with densities having singularities at the origin. **82f:65147**
Metropolis, N. Summation of imprecise numbers. **82d:65092**
Morf, Martin *See* **Lee, Daniel T. L.; et al., 82h:65104**
Müller, Bruno Numerische Lösung von Warteschlangennetzwerken durch Kombination von Iterations- und Aggregierungsverfahren. [Numerical solution of queueing networks by combining iteration- and aggregation-procedures] **82i:65084**
Nesterov, A. V. *See* **Kinščak, V. I., 82i:65085b**
Pollard, J. H. ★Numerical and statistical techniques. **82j:65031**
Shannon, Robert E. *See* **Donnelly, James H., 82a:65103**
(Spalviņš, A.) *See* **Computer technology and boundary value problems, 82i:65085a**
Tihonov, V. I. ★Umkehraufgaben und Datenbewertung. (German) [Inverse problems and data evaluation] **82k:65088**

Computer technology and boundary value problems ★Вычислительная техника и краевые задачи. Вып. 19. (Russian) [Computer technology and boundary value problems. No. 19] **82i:65085a**

secondary classifications:

Adès, M. (*with* Dion, J.-P.; Labelle, G.) Sur l'itération des fonctions génératrices de probabilité. **(82m:62024)**
Arkin, B. I. (*with* Saksonov, M. T.) To the maximum principle theory for problems of control of stochastic differential equations. **(82g:49013)**
Bécus, Georges A. Successive approximations solution of a class of random equations. **(82a:60096)**
Bellomo, Nicola (*with* Pistone, G.) Time-evolution of the probability density under the action of a deterministic dynamical system. **(82d:60102)**
Benveniste, Albert (*with* Crépel, Pierre) Normalité asymptotique: approximation diffusion pour les algorithmes récursifs: et applications. **(82j:60102)**
Crépel, Pierre *See* **Benveniste, Albert, (82j:60102)**
Dagenais, Marcel G. (*with* Tran Cong Liem) Numerical approximations of marginals from "well-behaved" joint posteriors. **(82h:62059)**
Daudin, J. J. An iterative algorithm for analysis of variance. (French summary) **(82e:62120)**
Deák, István Fast procedures for generating stationary normal vectors. **(82f:65007)**
Dion, J.-P. *See* **Adès, M.; et al., (82m:62024)**
Dutter, Rudolf Robuste Regression. **(82h:62041)**
Gabrijolavičius, Alfredas (*with* Krupovnickas, Al'girdas) On numerically stable triangularization algorithms. (Russian. Lithuanian and English summaries) **(82i:93079)**
George, Alan (*with* Ng, Esmond) A comparison of some methods for solving sparse linear least squares problems. **(82m:65034)**
Golub, Gene H. (*with* Van Loan, Charles) Total least squares. **(82a:65013)**
Has'minskiĭ, R. Z. *See* **Ibragimov, I. A., (82g:62006)**
(Hedayat, A.) *See* **Optimal design theory, (82g:62106)**
Ibragimov, I. A. (*with* Has'minskiĭ, R. Z.) ★Statistical estimation. **(82g:62006)**
Jensen, Roderick V. (*with* Oberman, C. R.) Calculation of the statistical properties of strange attractors. **(82e:58064)**
Kažnova, T. I. On the question of approximation of stochastic processes by systems of splines. (Russian) **(82h:60005)**
Karačun, L. F. *See* **Romankevič, A. M., (82h:68132)**
Kaštanov, Ju. N. Improvement of convergence in Monte Carlo calculation of functionals of a stationary distribution of a Markov chain. (Russian. English summary) **(82e:65007)**
Kinderman, A. J. (*with* Monahan, J. F.) New methods for generating Student's t and gamma variables. (German summary) **(82e:65008)**
(Kotz, Samuel) *See* **Ibragimov, I. A.; et al., (82g:62006)**
Krupovnickas, Al'girdas *See* **Gabrijolavičius, Alfredas, (82i:93079)**
Labelle, G. *See* **Adès, M.; et al., (82m:62024)**
Martynov, G. V. Calculation of the function of normal distribution. (Russian) **(82h:62003)**
Mazurkov, M. I. (*with* Sverdlik, M. B.) Evaluation of the effectiveness of the fast method of directly calculating circular convolution and correlation. **(82e:62147)**
McKenna, J. (*with* Mitra, Debasis; Ramakrishnan, K. G.) A class of closed Markovian queuing networks: integral representations, asymptotic expansions, and generalizations. **(82g:60117)**
Mitra, Debasis *See* **McKenna, J.; et al., (82g:60117)**
Monahan, J. F. *See* **Kinderman, A. J., (82e:65008)**
Mönch, Wolfgang Schrittweitensteuerung bei der iterativen Verbesserung näherungsweise berechneter Lösungen linearer Ausgleichsprobleme. **(82g:65023)**
Nemetz, Tibor Run-test discrimination between written Hungarian and random sequences. **(82h:94021)**
Ng, Esmond *See* **George, Alan, (82m:65034)**
Oberman, C. R. *See* **Jensen, Roderick V., (82e:58064)**
Pistone, G. *See* **Bellomo, Nicola, (82d:60102)**
Platen, Eckhard Weak convergence of approximations of Itô integral equations. (German and Russian summaries) **(82f:60145)**
Pupeikis, Rimantas On a method of estimating the efficiency of a recursive least squares algorithm. (Russian. Lithuanian and English summaries) **(82i:93084)**
Ramakrishnan, K. G. *See* **McKenna, J.; et al., (82g:60117)**
Reyer, Steven E. Manipulation of multidimensional polynomials. **(82i:93076)**
Rice, S. O. Distribution of quadratic forms in normal random variables—evaluation by numerical integration. **(82g:62037)**
Romankevič, A. M. (*with* Karačun, L. F.) On the calculation of the characteristics of a source of test sequences in a probabilistic system of technical diagnostics. (Russian. English summary) **(82h:68132)**
Rubinstein, Y. Selecting the best stable stochastic system. **(82g:60113)**
Saksonov, M. T. *See* **Arkin, B. I., (82g:49013)**
Seneta, E. Computing the stationary distribution for infinite Markov chains. **(82a:60103)**
Stoica, Petre *See* **Tertişco, Mihai, (82m:93030)**
Strejc, Vladimir Least squares parameter estimation. **(82b:93038)**
Sverdlik, M. B. *See* **Mazurkov, M. I., (82e:62147)**
Tasaka, Seiichi Stability analysis of a finite element scheme for the heat equation with a random initial condition. **(82k:65071)**
Tertişco, Mihai (*with* Stoica, Petre) ★Identificarea şi estimarea parametrilor sistemelor. (Romanian) [System identification and parameter estimation] **(82m:93030)**
Thompson, Robin Maximum likelihood estimation of variance components. **(82g:62102)**
Tran Cong Liem *See* **Dagenais, Marcel G., (82h:62059)**
Van Loan, Charles *See* **Golub, Gene H., (82a:65013)**
Meeting:
American Statistical Association, Social Statistics Section ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **(82c:62004a)**
American Statistical Association, Statistical Computing Section ★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004b)**
Meeting: (*continued*)
★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004c)**
Optimal design theory ★Optimal design theory. **(82g:62106)**
Proceedings:
Social Statistics Section, American Statistical Association ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **(82c:62004a)**
Statistical Computing Section, American Statistical Association ★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004b)**
★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004c)**
San Diego, Calif. ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **(82c:62004a)**
★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004b)**
Social statistics ★1978 Proceedings of the Social Statistics Section, American Statistical Association. **(82c:62004a)**
Statistical computing ★1978 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004b)**
★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004c)**
Washington, D.C. ★1979 Proceedings of the Statistical Computing Section, American Statistical Association. **(82c:62004c)**

65V05 Automated algorithms [See also 68C05.]

secondary classifications:

Ellison, D. Efficient automatic integration of ordinary differential equations with discontinuities. **(82j:65046)**
Späth, H. Algorithm 39. Clusterwise linear regression. (German summary) **(82f:65003a)** Correction to: "Algorithm 39: clusterwise linear regression" [Computing **22** (1979), no. 4, 367–373]. **(82f:65003b)**
Tewarson, R. P. On the use of splines for the numerical solution of nonlinear two-point boundary value problems. **(82j:65058)**

68–XX COMPUTER SCIENCE (including AUTOMATA) {For papers involving machine computations and programs in a specific mathematical area, see section –04 in that area.}

(Weik, Martin H.) *See* **Dictionary: Computer, 82a:68001**
Dictionary:
Computer ★Computer dictionary. **82a:68001**

68–01 Elementary exposition, textbooks

Baron, Robert J. (*with* Shapiro, Linda G.) ★Data structures and their implementation. **82i:68001**
Barskiĭ, A. B. ★Планирование параллельных вычислительных процессов. (Russian) [Design of parallel computing processes] **82e:68001**
Ceitlin, G. E. *See* **Gluškov, V. M.; et al., 82b:68001**
(Creutzburg, Egbert) *See* **Gluškov, V. M.; et al., 82b:68001**
Frolov, G. D. *See* **Krinickiĭ, N. A.; et al., 82c:68001**
Gluškov, V. M. (*with* Ceĭtlin, G. E.; Juščenko, K. L.) ★Algebra, Sprachen, Programmierung. (German) [Algebra, languages, programming] **82b:68001**
(Harin, V.) *See* **Krinickiĭ, N. A.; et al., 82c:68001**
Herrlich, Ottomar (*with* Lindner, Ulrich) ★Strukturierte Programmierung. (German) [Structured programming] **82m:68001**
Juščenko, K. L. *See* **Gluškov, V. M.; et al., 82b:68001**
(Klette, Reinhard) *See* **Gluškov, V. M.; et al., 82b:68001**
Krinickiĭ, N. A. (*with* Mironov, G. A.; Frolov, G. D.) ★Programmation et langages symboliques. (French) [Programming and algorithmic languages] **82c:68001**
(Lindner, Rolf) *See* **Gluškov, V. M.; et al., 82b:68001**
Lindner, Ulrich *See* **Herrlich, Ottomar, 82m:68001**
(Meißner, Hansgeorg) *See* **Gluškov, V. M.; et al., 82b:68001**
(Mende, Helmut) *See* **Gluškov, V. M.; et al., 82b:68001**
Metz, Joachim ★Abstrakte Rechnermodelle. (German) [Abstract computer models] **82j:68001**
Mironov, G. A. *See* **Krinickiĭ, N. A.; et al., 82c:68001**
Niemann, Heinrich ★Pattern analysis. **82m:68002**
Pohl, Ira (*with* Shaw, Alan C.) ★The nature of computation: an introduction to computer science. **82j:68002**
Reinert, Dietmar ★Prüftheorie diskreter Systeme. (German) [Fault testing of discrete systems] **82c:68002**
(Scott, Dana S.) *See* **Stoy, Joseph E., 82m:68003**
Shapiro, Linda G. *See* **Baron, Robert J., 82i:68001**
Shaw, Alan C. *See* **Pohl, Ira, 82j:68002**
Stoy, Joseph E. ★Denotational semantics: the Scott-Strachey approach to programming language theory. **82m:68003**
(Werner, Günter) *See* **Gluškov, V. M.; et al., 82b:68001**

secondary classifications:

(Alekseev, V. B.) *See* **Reingold, Edward M.; et al., (82a:68056)**
Beale, E. M. L. The Blackett Memorial Lecture 1980. Operational research and computers: a personal view. **(82a:90042)**
Buchberger, Bruno (*with* Lichtenberger, Franz) ★Mathematik für Informatiker. I. (German) [Mathematics for computer scientists. I] **82i:00006)**
Cohors-Fresenborg, Elmar Möglichkeiten und Grenzen einer algorithmischen Mathematik. **(82k:03001)**

Deo, Narsingh *See* **Reingold, Edward M.; et al., (82a:68056)**
(Gerber, H. Joseph) *See* **Liming, Roy Aaron, (82g:68095)**
(Gluškov, V. M.) *See* **Dictionary: Cybernetics, (82i:00015)**
Kelton, W. David *See* **Law, Averill M., (82i:68058)**
Law, Averill M. (*with* Kelton, W. David) ★Simulation modeling and analysis. **(82i:68058)**
Lichtenberger, Franz *See* **Buchberger, Bruno, (82i:00006)**
Liming, Roy Aaron ★Mathematics for computer graphics. **(82g:68095)**
(Lipatov, E. P.) *See* **Reingold, Edward M.; et al., (82a:68056)**
Nievergelt, Jurg *See* **Reingold, Edward M.; et al., (82a:68056)**
Peterson, James Lyle ★Petri net theory and the modeling of systems. **(82j:68017)**
Reingold, Edward M. (*with* Nievergelt, Jurg; Deo, Narsingh) ★Комбинаторные алгоритмы. (Russian) [Combinatorial algorithms] **(82a:68056)**
Rouse, William B. ★Systems engineering models of human-machine interaction. **(82b:90042)**
(Singer, Josef) *See* **Liming, Roy Aaron, (82g:68095)**
Wang, Hao ★Popular lectures on mathematical logic. **(82e:03001)**
Zahnd, Jacques ★Machines séquentielles. (French) [Sequential machines] **(82k:68025)**
Dictionary:
Cybernetics ★Словарь по кибернетике. (Russian) [Dictionary of cybernetics] **(82i:00015)**
Traité d'Électricité *See* **Zahnd, Jacques, (82k:68025)**

68–02 Advanced exposition (research surveys, monographs, etc.)

Bergholz, Gerhard ★Verhaltensmodelle von Prozeßrechnern. (German) [Behavior models of process control computers] **82a:68002**
Milner, Robin ★A calculus of communicating systems. **82g:68001**
Sammet, Jean E. An overview of high-level languages. (*See* **82i:68002**)
Sanderson, John G. ★A relational theory of computing. **82m:68004**

secondary classifications:

(Brady, Michael) *See* **Special issue: Computer vision, (82j:68093)**
Csirmaz, László A survey of semantics of Floyd-Hoare derivability. **(82j:68005)**
Ehrig, Hartmut Introduction to the algebraic theory of graph grammars (a survey). **(82e:68073a)**
Iverson, Kenneth E. Notation as a tool of thought. **(82b:00007)**
Nagl, Manfred A tutorial and bibliographical survey on graph grammars. **(82e:68073b)**
Nievergelt, Jurg Trees as data and file structures. **(82j:68014)**
Nijholt, Anton ★Context-free grammars: covers, normal forms, and parsing. **(82f:68081)**
Pippenger, Nicholas Algebraic complexity theory. **(82k:68020)**
Pospelov, D. A. *See* **Pospelov, G. S., (82f:68089)**
Pospelov, G. S. (*with* Pospelov, D. A.) Investigations in artificial intelligence in the USSR. (Russian) **(82f:68089)**
Randell, Brian Fault tolerant computing systems. **(82e:68007)**
Semenjuk, È. P. (*with* Stasišin, V. M.) Mathematization of scientific knowledge and computer science. Applied aspects. (Russian) **(82e:00042)**
Stasišin, V. M. *See* **Semenjuk, È. P., (82e:00042)**
(Stefanjuk, V. L.) *See* **Winston, Patrick Henry, (82c:68058)**
Vitányi, P. M. B. ★Lindenmayer systems: structure, languages, and growth functions. **(82e:68054)**
Winston, Patrick Henry ★Искусственный интеллект. (Russian) [Artificial intelligence] **(82c:68058)**
Special issue:
Computer vision ★Special volume on computer vision. **(82j:68093)**

68–03 Historical (must also be assigned at least one classification number from Section 01)

Hartmanis, Juris Observations about the development of theoretical computer science. **82g:68002**
Randell, Brian An annotated bibliography on the origins of digital computers. **82a:68003**
Bibliography:
Origins of digital computers *See* **Randell, Brian, 82a:68003**

secondary classifications:

Apokin, I. A. (*with* Belyĭ, Ju. A.; Maĭstrov, L. E.) J. V. Atanasoff's computing machine. (Russian) **(82f:01058)**
(Atanasoff, J. V.) *See* **Apokin, I. A.; et al., (82f:01058)**
(Babbage, Charles) *See* **Maĭstrov, L. E.; et al., (82g:01027)**
Belyĭ, Ju. A. *See* **Apokin, I. A.; et al., (82f:01058)**
Èdlin, I. S. *See* **Maĭstrov, L. E., (82g:01027)**
Maĭstrov, L. E. (*with* Èdlin, I. S.) C. Babbage's difference engine. (Russian. English summary) **(82g:01027)**
See also **Apokin, I. A.; et al., (82f:01058)**
Sammet, Jean E. An overview of high-level languages. (*See* **82i:68002**)

68–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Amos, Donald E. Computation of exponential integrals. **(82b:65011)**
(Gladwell, Ian) *See* **Computational techniques for ordinary differential equations, (82a:65053)**
(Sayers, D. K.) *See* **Computational techniques for ordinary differential equations, (82a:65053)**
Computational techniques for ordinary differential equations ★Computational techniques for ordinary differential equations. **(82a:65053)**
Conference:
Computational Techniques for Ordinary Differential Equations ★Computational techniques for ordinary differential equations. **(82a:65053)**
Manchester ★Computational techniques for ordinary differential equations. **(82a:65053)**
Ordinary differential equations ★Computational techniques for ordinary differential equations. **(82a:65053)**

68–06 Proceedings, conferences, etc.

(Apers, P. M. G.) *See* **Colloquium: Database Organization, 82m:68005a** *and* **82m:68005b**
(Astesiano, Egidio) *See* **CAAP '81, 82f:68002**
(Auerbach, Isaac L.) *See* **Auerbach Annual: 1980 best computer papers, 82k:68002**
(Böhm, Corrado) *See* **CAAP '81, 82f:68002**
(Buharaev, R. G.) *See* **Probabilistic methods and cybernetics, 82a:68006**
(Díaz, Josep) *See* **Formalization of programming concepts, 82f:68005**
(Duijvestijn, A. J. W.) *See* **Trends in information processing systems, 82k:68004**
(Even, Shimon) *See* **Automata, languages and programming, 82i:68003**
(Feilmeier, M.) *See* **Parallel computers—parallel mathematics, 82k:68003**
(Freeman, Herbert) *See* **Map data processing, 82m:68006a**
(Gavrilova, N. L.) *See* **Hierarchical automated data processing systems, 82f:68006**
(Golunkov, Ju. V.) *See* **Probabilistic methods and cybernetics, 82d:68002**
(Händler, Wolfgang) *See* **CONPAR, 82e:68002**
(Juščenko, K. L.) *See* **Theoretical and systems programming, 82a:68008**
(Kariv, Oded) *See* **Automata, languages and programming, 82i:68003**
(Klinger, Allen) *See* **Structured computer vision, 82m:68009**
(Kosaraju, S. Rao) *See* **Special issue: Machtey, Michael, 82i:68005**
(Križanovskiĭ, V. V.) *See* **Theoretical and systems programming, 82a:68008**
(Krot, V. M.) *See* **Problems on the theory of robots and artificial intelligence, 82g:68091a**
(Kung, H. T.) *See* **VLSI systems and computations, 82i:68006**
(Levčenko, N. A.) *See* **Construction and application of specialized tools of computer technology, 82e:68003**
(Lockemann, P. C.) *See* **Trends in information processing systems, 82k:68004**
(Lupanov, O. B.) *See* **Cybernetics collection, 82d:68001**
(Machtey, Michael) *See* **Special issue: Machtey, Michael, 82i:68005**
(Makovenko, E. T.) *See* **Technical resources of mini- and micro-computers, 82f:68007**
(Malinovskiĭ, B. N.) *See* **Technical resources of mini- and micro-computers, 82f:68007**
(Medley, Don) *See* **Conference: AFIPS, Computer, 82f:68004**
(Mertens, Burkhard) *See* **Measurement, modeling and evaluation of computing systems, 82h:68002**
(Merwin, Richard E.) *See* **Conference: AFIPS, Computer, 82f:68003**
(Meyer, Albert R.) *See* **Special issue: Machtey, Michael, 82i:68005**
(Mihailov, A. I.) *See* **Semiotics and information science, 82a:68007**
(Nigmatullin, R. G.) *See* **Probabilistic methods and cybernetics, 82a:68006**
(Noltemeier, Hartmut) *See* **Graphtheoretic concepts in computer science, 82g:68005**
(Pieroni, Goffredo G.) *See* **Map data processing, 82m:68006a**
(Ponomarev, V. M.) *See* **Algorithmic models in computerization of research, 82h:68002**
(Prangišvili, I. V.) *See* **Multiprocessor computer systems with reorganizable structure, 82m:68007**
(Ramos, Isidro) *See* **Formalization of programming concepts, 82f:68005**
(Rybak, V. I.) *See* **Problems on the theory of robots and artificial intelligence, 82g:68091a**
(Šabanov-Kuĭnarenko, Ju. P.) *See* **Problems of bionics, 82i:68004**
(Sablina, S. A.) *See* **Construction and application of specialized tools of computer technology, 82e:68003**
(Sproull, Robert F.) *See* **VLSI systems and computations, 82i:68006**
(Steele, Guy, Jr.) *See* **VLSI systems and computations, 82i:68006**
(Stepanenko, E. N.) *See* **Questions of the application of computers in the development and investigation of technical systems, 82g:68007**
(Stognīĭ, A. O.) *See* **Data banks and information retrieval systems, 82g:68003**
(Swartzlander, Earl E., Jr.) *See* **Computer arithmetic, 82c:68003**
(Tanimoto, Steven L.) *See* **Structured computer vision, 82m:68009**
(Tou, Julius T.) *See* **Advances in information systems science, 82k:68001**
(Verkerk, C.) *See* **Proceedings: CERN School of Computing, 82d:68003**
(Wilhelm, R.) *See* **Jahrestagung: Gesellschaft für Informatik, 82b:68003**
(Yovits, Marshall C.) *See* **Advances in computers, 82i:68002**
Advances in computers ★Advances in computers. Vol. 20. **82i:68002**
Advances in information systems science ★Advances in information systems science. Vol. 8. **82k:68001**
Akko ★Automata, languages and programming. **82i:68003**
Algebra ★Les arbres en algèbre et en programmation. (French) [Trees in algebra and programming] **82e:68004**
★CAAP '81. **82f:68002**
Algorithmic models in computerization of research ★Алгоритмические модели в автоматизации исследований. (Russian) [Algorithmic models in computerization of research] **82h:68002**
Anaheim, Calif. ★1980 National Computer Conference. **82f:68004**
Arithmetic ★Computer arithmetic. **82c:68003**
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Auerbach Annual: 1980 best computer papers ★The Auerbach Annual: 1980 best computer papers. **82k:68002**
Automata, languages and programming ★Automata, languages and programming. **82i:68003**
Automatic pattern recognition and perception by a computer ★Classification automatique et perception par ordinateur. (French) [Automatic pattern recognition and perception by computer] **82f:68001**
Bad Honnef ★Graph-theoretic concepts in computer science. **82g:68005**
CAAP '81 ★CAAP '81. **82f:68002**
Colloquium:
Automata, Languages and Programming ★Automata, languages and programming. **82i:68003**

Colloquium: (*continued*)
Database Organization ★Colloquium Databankorganisatie. Deel 1. (Dutch) [Colloquium on Database Organization. Part 1] **82m:68005a**
★Colloquium Databankorganisatie. Deel 2. (Dutch) [Colloquium on Database Organization. Part 2] **82m:68005b**
Formalization of Programming Concepts ★Formalization of programming concepts. **82f:68005**
Trees in Algebra and Programming ★Les arbres en algèbre et en programmation. (French) [Trees in algebra and programming] **82e:68004**
★CAAP '81. **82f:68002**
Computer arithmetic ★Computer arithmetic. **82c:68003**
Computer science ★20th Annual Symposium on Foundations of Computer Science. **82a:68004**
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★Алгоритмические модели в автоматизации исследований. (Russian) [Algorithmic models in computerization of research] **82b:68002**
★GI—10. Jahrestagung. (German) **82b:68003**
★1980 National Computer Conference. **82f:68004**
★Технические средства мини- и микро-ЭВМ. (Russian) [Technical resources of mini- and micro-computers] **82f:68007**
★CONPAR 81. **82e:68002**
★Formalization of programming concepts. **82f:68005**
★Graph-theoretic concepts in computer science. **82g:68005**
Computing ★Proceedings of the 1980 CERN School of Computing. **82d:68003**
Conference:
AFIPS, Computer ★1979 National Computer Conference. **82f:68003**
★1980 National Computer Conference. **82f:68004**
Analysing Problem Classes and Programming for Parallel Computing ★CONPAR 81. **82e:68002**
European Cooperation in Informatics ★Trends in information processing systems. **82k:68004**
Gesellschaft für Informatik, Measurement, Modeling and Evaluation of Computing Systems ★Messung, Modellierung und Bewertung von Rechensystemen. (German) [Measurement, modeling and evaluation of computing systems] **82h:68002**
VLSI Systems and Computations ★VLSI systems and computations. **82i:68006**
CONPAR ★CONPAR 81. **82e:68002**
Construction and application of specialized tools of computer technology ★Конструирование и применение специализированных средств вычислительной техники. (Russian) [Construction and application of specialized tools of computer technology] **82e:68003**
Cybernetics ★Вероятностные методы и кибернетика. Вып. 16. (Russian) [Probabilistic methods and cybernetics. No. 16] **82a:68006**
★Вероятностные методы и кибернетика. Вып. 17. (Russian) [Probabilistic methods and cybernetics. No. 17] **82d:68002**
Cybernetics collection ★Кибернетический сборник. Новая серия. Вып. 17. (Russian) [Cybernetics collection. New series. No. 17] **82d:68001**
Data banks and information retrieval systems ★Банки данных и информационно-поисковые системы. (Russian) [Data bases and information retrieval systems] **82g:68003**
Data processing systems ★Иерархические автоматизированные системы обработки данных. (Russian) [Hierarchical automated data processing systems] **82f:68006**
Database organization ★Colloquium Databankorganisatie. Deel 1. (Dutch) [Colloquium on Database Organization. Part 1] **82m:68005a**
Engineering ★Mathematical methods in software science and engineering. **82a:68005**
Evaluation of mathematical softwares ★Evaluation of mathematical softwares. (Japanese) **82h:68001**
Formalization of programming concepts ★Formalization of programming concepts. **82f:68005**
Fundamental theories and applications of mathematical information science ★Fundamental theories and applications of mathematical information science. (Japanese) **82g:68004**
Genoa ★CAAP '81. **82f:68002**
Graphtheoretic concepts in computer science ★Graph-theoretic concepts in computer science. **82g:68005**
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Foundations of Computer Science ★20th Annual Symposium on Foundations of Computer Science. **82a:68004**
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Automatic Pattern Recognition and Perception by Computer ★Classification automatique et perception par ordinateur. (French) [Automatic pattern recognition and perception by computer] **82f:68001**
Jahrestagung:
Gesellschaft für Informatik ★GI—10. Jahrestagung. (German) **82b:68003**
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Lille ★Les arbres en algèbre et en programmation. (French) [Trees in algebra and programming] **82e:68004**
Map data processing ★Map data processing. **82m:68006a**
Maratea ★Map data processing. **82m:68006a**
Mathematical methods in software science and engineering ★Mathematical methods in software science and engineering. **82a:68005**
★Mathematical methods in software science and engineering. **82c:68004**
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Measurement, modeling and evaluation of computing systems ★Messung, Modellierung und Bewertung von Rechensystemen. (German) [Measurement, modeling and evaluation of computing systems] **82h:68002**
Messung, Modellierung und Bewertung von Rechensystemen ★Messung, Modellierung und Bewertung von Rechensystemen. (German) [Measurement, modeling and evaluation of computing systems] **82h:68002**
Multiprocessor computer systems with reorganizable structure ★Многопроцессорные вычислительные системы с перестраиваемой структурой. (Russian) [Multiprocessor computer systems with reorganizable structure] **82m:68007**
Munich ★Parallel computers—parallel mathematics. **82k:68003**
★Trends in information processing systems. **82k:68004**
NATO Advanced Study Institute:
Map Data Processing ★Map data processing. **82m:68006a**
New York ★1979 National Computer Conference. **82f:68003**
Nuremberg ★CONPAR 81. **82e:68002**
Operating systems theory ★Operációs rendszerek elmélete. [Operating systems theory] **82g:68006**
Parallel computers—parallel mathematics ★Parallel computers—parallel mathematics. **82k:68003**
Pattern recognition ★Pattern recognition. **82m:68008**
Peñiscola ★Formalization of programming concepts. **82f:68005**
Pittsburgh, Pa. ★VLSI systems and computations. **82i:68006**
Probabilistic methods and cybernetics ★Вероятностные методы и кибернетика. Вып. 16. (Russian) [Probabilistic methods and cybernetics. No. 16] **82a:68006**
★Вероятностные методы и кибернетика. Вып. 17. (Russian) [Probabilistic methods and cybernetics. No. 17] **82d:68002**
Problems of bionics ★Проблемы бионики. Вып. 22. (Russian) [Problems of bionics. No. 22] **82i:68004**
Problems on the theory of robots and artificial intelligence ★Вопросы теории роботов и искусственного интеллекта. (Russian) [Problems on the theory of robots and artificial intelligence] **82g:68091a**
Proceedings:
CERN School of Computing ★Proceedings of the 1980 CERN School of Computing. **82d:68003**
Programming ★Теоретическое и системное программирование. (Russian) [Theoretical and systems programming] **82a:68008**
★Les arbres en algèbre et en programmation. (French) [Trees in algebra and programming] **82e:68004**
★CAAP '81. **82f:68002**
Questions of the application of computers in the development and investigation of technical systems ★Вопросы применения ЭВМ при разработке и исследовании технических систем. (Russian) [Questions of the application of computers in the development and investigation of technical systems] **82g:68007**
Rocquencourt ★Classification automatique et perception par ordinateur. (French) [Automatic pattern recognition and perception by computer] **82f:68001**
Saarbrücken ★GI—10. Jahrestagung. (German) **82b:68003**
San Juan, Puerto Rico ★20th Annual Symposium on Foundations of Computer Science. **82a:68004**
★{Special issue dedicated to Michael Machtey}. **82i:68005**
School:
CERN, Computing ★Proceedings of the 1980 CERN School of Computing. **82d:68003**
Semiotics and information science ★Семиотика и информатика. Вып. 15. (Russian) [Semiotics and information science. No. 15] **82a:68007**
Software science ★Mathematical methods in software science and engineering. **82a:68005**
★Mathematical methods in software science and engineering. **82c:68004**
Special issue:
Machtey, Michael ★{Special issue dedicated to Michael Machtey}. **82i:68005**
Structured computer vision ★Structured computer vision. **82m:68009**
Symposium:
Evaluation of Mathematical Softwares ★Evaluation of mathematical softwares. (Japanese) **82h:68001**
Foundations of Computer Science ★{Special issue dedicated to Michael Machtey}. **82i:68005**
Fundamental Theories and Applications of Mathematical Information Science ★Fundamental theories and applications of mathematical information science. (Japanese) **82g:68004**
IMACS-GI, Parallel Computers—Parallel Mathematics ★Parallel computers—parallel mathematics. **82k:68003**
Mathematical Methods in Software Science and Engineering ★Mathematical methods in software science and engineering. **82a:68005**
★Mathematical methods in software science and engineering. **82c:68004**
Theoretical Studies on Memory Storage and Use of Information ★Theoretical studies on memory storage and use of information. (Japanese) **82g:68008**
Technical resources of mini- and micro-computers ★Технические средства мини- и микро-ЭВМ. (Russian) [Technical resources of mini- and micro-computers] **82f:68007**
Theoretical studies on memory storage and use of information ★Theoretical studies on memory storage and use of information. (Japanese) **82g:68008**
Theoretical and systems programming ★Теоретическое и системное программирование. (Russian) [Theoretical and systems programming] **82a:68008**
Trees in algebra and programming ★Les arbres en algèbre et en programmation. (French) [Trees in algebra and programming] **82e:68004**
Trends in information processing systems ★Trends in information processing systems. **82k:68004**
Visegrád ★Operációs rendszerek elmélete. [Operating systems theory] **82g:68006**
VLSI systems and computations ★VLSI systems and computations. **82i:68006**
Vraona ★Proceedings of the 1980 CERN School of Computing. **82d:68003**
Winter School:
Operating Systems Theory ★Operációs rendszerek elmélete. [Operating systems theory] **82g:68006**

Workshop:
Graphtheoretic Concepts in Computer Science ★Graph-theoretic concepts in computer science. **82g:68005**

secondary classifications:

(Andon, F. I.) *See* **Data bases and information retrieval systems, (82d:68057a)**
(Birjukov, A. N.) *See* **Semantics of programming languages, (82d:68051)**
(Gallaire, Hervé) *See* **Advances in data base theory, (82a:68040)**
(Garcia, Oscar N.) *See* **Proceedings: International Conference on Parallel Processing, (82b:68024)**
(Hadlock, F. O.) *See* **Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, (82b:05004a)** *and* **(82b:05004b)**
(Hoffman, F.) *See* **Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, (82b:05004a)** *and* **(82b:05004b)**
(Inose, H.) *See* **Evolutions in computer communications, (82m:94001)**
(Iščuk, V. A.) *See* **Questions of the computational complexity of algorithms, (82d:68036)**
(Kuročkin, V. M.) *See* **Semantics of programming languages, (82d:68051)**
(Meek, D. S.) *See* **Proceedings: Manitoba Conference on Numerical Mathematics and Computing, (82j:00010)** *and* **(82j:00011)**
(Mihailov, A. I.) *See* **Semiotics and information science, (82k:03004)**
(Minker, Jack) *See* **Advances in data base theory, (82a:68040)**
(Mullin, R. C.) *See* **Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, (82b:05004a)** *and* **(82b:05004b)**
(Nicolas, Jean-Marie) *See* **Advances in data base theory, (82a:68040)**
Poljačenko, B. E. An effective algorithm for obtaining the optimal partitioning of a graph with addition of vertices. (Russian) **(82d:68057b)**
(Serebrjakov, V. A.) *See* **Semantics of programming languages, (82d:68051)**
(Stanton, R. G.) *See* **Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, (82b:05004a)** *and* **(82b:05004b)**
(Stognii, A. O.) *See* **Data bases and information retrieval systems, (82d:68057a)**
(Van Rees, G. H. J.) *See* **Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, (82b:05004a)** *and* **(82b:05004b)**
(Williams, H. C.) *See* **Proceedings: Manitoba Conference on Numerical Mathematics and Computing, (82j:00010)** *and* **(82j:00011)**
Advances in data base theory ★Advances in data base theory. Vol. I. **(82a:68040)**
Algorithms ★Вопросы анализа вычислительной сложности алгоритмов. (Russian) [Questions of the computational complexity of algorithms] **(82d:68036)**
Bellaire, Mich. ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
Boca Raton, Fla. ★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. I. **(82b:05004a)**
★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. II. **(82b:05004b)**
Combinatorics ★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. I. **(82b:05004a)**
★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. II. **(82b:05004b)**
Computational complexities ★Studies on computational complexities and related topics. (Japanese) **(82k:68072)**
Computing ★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. I. **(82b:05004a)**
★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. II. **(82b:05004b)**
Conference:
Computer Communication ★Evolutions in computer communications. **(82m:94001)**
Manitoba, Numerical Mathematics and Computing ★Proceedings of the Tenth Manitoba Conference on Numerical Mathematics and Computing. Vol. I. **(82j:00010)**
★Proceedings of the Tenth Manitoba Conference on Numerical Mathematics and Computing. Vol. II. **(82j:00011)**
Parallel Processing ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
Pattern Recognition ★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 1. **(82g:68088a)**
★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 2. **(82g:68088b)**
Southeastern, Combinatorics, Graph Theory and Computing ★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. I. **(82b:05004a)**
★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. II. **(82b:05004b)**
Data bases ★Advances in data base theory. Vol. I. **(82a:68040)**
Data bases and information retrieval systems ★Банки данных и информационно-поисковые системы. (Russian) [Data bases and information retrieval systems] **(82d:68057a)**
Evolutions in computer communications ★Evolutions in computer communications. **(82m:94001)**
Formula manipulation and its applications for mathematical studies ★Formula manipulation and its applications for mathematical studies. (Japanese) **(82e:68035)**
Graph theory ★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. I. **(82b:05004a)**
★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. II. **(82b:05004b)**
Information retrieval systems ★Банки данных и информационно-поисковые системы. (Russian) [Data bases and information retrieval systems] **(82d:68057a)**
Kyoto ★Evolutions in computer communications. **(82m:94001)**
Miami Beach, Fla. ★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 1. **(82g:68088a)**
★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 2. **(82g:68088b)**
Parallel processing ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
Pattern recognition ★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 1. **(82g:68088a)**
★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 2. **(82g:68088b)**
Proceedings:
International Conference on Parallel Processing ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
International Conference on Pattern Recognition ★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 1. **(82g:68088a)**
★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 2. **(82g:68088b)**
Manitoba Conference on Numerical Mathematics and Computing ★Proceedings of the Tenth Manitoba Conference on Numerical Mathematics and Computing. Vol. I. **(82j:00010)**
★Proceedings of the Tenth Manitoba Conference on Numerical Mathematics and Computing. Vol. II. **(82j:00011)**
Southeastern Conference on Combinatorics, Graph Theory and Computing
★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. I. **(82b:05004a)**
★Proceedings of the Eleventh Southeastern Conference on Combinatorics, Graph Theory, and Computing. Vol. II. **(82b:05004b)**
Programming languages ★Семантика языков программирования. (Russian) [Semantics of programming languages] **(82d:68051)**
Questions of the computational complexity of algorithms ★Вопросы анализа вычислительной сложности алгоритмов. (Russian) [Questions of the computational complexity of algorithms] **(82d:68036)**
Semantics of programming languages ★Семантика языков программирования. (Russian) [Semantics of programming languages] **(82d:68051)**
Semiotics and information science ★Семиотика и информатика. Вып. 16. (Russian) [Semiotics and information science. No. 16] **(82k:03004)**
Studies on computational complexities and related topics ★Studies on computational complexities and related topics. (Japanese) **(82k:68072)**
Symposium:
Formula Manipulation and its Applications for Mathematical Studies ★Formula manipulation and its applications for mathematical studies. (Japanese) **(82e:68035)**
Studies on Computational Complexities and Related Topics ★Studies on computational complexities and related topics. (Japanese) **(82k:68072)**
Toulouse ★Advances in data base theory. Vol. I. **(82a:68040)**
Winnipeg, Man. ★Proceedings of the Tenth Manitoba Conference on Numerical Mathematics and Computing. Vol. I. **(82j:00010)**
★Proceedings of the Tenth Manitoba Conference on Numerical Mathematics and Computing. Vol. II. **(82j:00011)**
Workshop:
Formal Bases for Data Bases ★Advances in data base theory. Vol. I. **(82a:68040)**

68A05 Computers and computer systems

Ameling, W. The development and application of digital differential analyzers. (*See* **82k:68003**)
Beregovenko, G. Ja. (*with* Puhov, G. È.) On the analysis of hybrid computer systems. (Russian. English summary) **82f:68008**
Chang, Hsu *See* **Lee, Der Tsai; et al., 82h:68004**
Deb, Ashoke A regular nonperiodic skewing scheme for optimal conflict-free memory access. **82a:68009**
Feng, Tse Yun *See* **Wu, Chuan Lin, 82d:68006**
Georganas, Nicolas D. Modeling and analysis of message-switched computer-communication networks with multilevel flow control. **82c:68005**
Goetz, Józef (*with* Huzar, Zbigniew) A new approach to the description of a model of a digital computer system. (Polish. English and Russian summaries) **82i:68007**
Huzar, Zbigniew *See* **Goetz, Józef, 82i:68007**
Janbihs, G. Use of the branch-and-bound method for topological optimization of a remote data processing network, with constraints on response time. **82d:68004**
Keller, Robert M. Some theoretical aspects of applicative multiprocessing. **82c:68006**
Knuth, Donald E. Verification of link-level protocols. **82k:68005**
Koljada, A. A. (*with* Kravcov, V. K.) Generalized residue class systems with an extended interval index. (Russian) **82h:68004**
Koren, Israel (*with* Maliniak, Yoram) On classes of positive, negative, and imaginary radix number systems. **82k:68006**
Kravcov, V. K. *See* **Koljada, A. A., 82h:68004**
Labetoulle, J. (*with* Pujolle, G.) A study of flows through virtual circuits computer networks. **82h:68003**
Ledjankin, Ju. Ja. ★Вопросы создания спецпроцессоров, проблемно-ориентированных на решение задач математической физики. (Russian) [Questions of devising special processors oriented towards the solution of problems of mathematical physics] **82g:68009**
Lee, Der Tsai (*with* Chang, Hsu; Wong, C. K.) An on-chip compare/steer bubble sorter. **82h:68004**
Makarevič, O. B. On the organization of multichannel access in data-processing systems with a high degree of parallelism. **82e:68005**
Maliniak, Yoram *See* **Koren, Israel, 82k:68006**
Mandojana, J. C. *See* **Meditch, James S., 82f:68009**
Markowsky, George (*with* Moss, Franklin H.) An evaluation of local path ID swapping in computer networks. **82a:68010**
Meditch, James S. (*with* Mandojana, J. C.) A decentralized algorithm for optimal routing in data-communication networks. **82f:68009**
Monahov, O. G. Parametric description of structures of homogeneous computer systems. (Russian) **82e:68006**

Monahova, È. A. Synthesis of optimal Diophantine structures. (Russian) **82i:68008**
Moss, Franklin H. *See* **Markowsky, George, 82a:68010**
Nassimi, David (*with* Sahni, Sartaj) A self-routing Benes network and parallel permutation algorithms. **82d:68005**
Palm, G. On the storage capacity of an associative memory with randomly distributed storage elements. **82c:68007**
Puhov, G. È. *See* **Beregovenko, G. Ja., 82f:68008**
Pujolle, G. *See* **Labetoulle, J., 82h:68003**
Randell, Brian Fault tolerant computing systems. **82e:68007**
Sahni, Sartaj *See* **Nassimi, David, 82d:68005**
Samoilenko, Stanislav I. Optimization problems in computer network design. **82f:68010**
Tarkov, M. S. Lower bound of the probability of connectedness of functional machines of a homogeneous computer system. (Russian) **82g:68010**
Wong, C. K. *See* **Lee, Der Tsai; et al., 82h:68004**
Wu, Chuan Lin (*with* Feng, Tse Yun) The universality of the shuffle-exchange network. **82d:68006**

secondary classifications:

Ae, Tadashi (*with* Osaki, S.) An easily diagnosable network for computing systems. (*See* **82m:94001**)
Aggarwal, K. K. *See* **Soi, Inder M., (82m:68090)**
Arden, Bruce W. (*with* Lee, Hikyu) Analysis of chordal ring network. **(82b:68053)**
Baccelli, François Analysis of a service facility with periodic checkpointing. **(82c:90040)**
Beauchamp, K. G. (*with* Yuen, C. K.) ★Data acquisition for signal analysis. **(82j:94006)**
Belonogov, G. G. (*with* Novoselov, A. P.) Principles of the construction of automated information systems. (Russian) **(82a:94028)**
Boguslavskiĭ, L. B. (*with* Gelenbe, Erol) A communication protocol and a problem of coupled queues. (Polish and Russian summaries) **(82e:94004)**
Bokhari, Shahid H. On the mapping problem. **(82b:68055)**
Bose, Bella (*with* Rao, T. R. N.) Unidirectional error codes for shift register memories. **(82a:94084)**
Brent, Richard P. (*with* Kung, H. T.) The area-time complexity of binary multiplication. **(82i:68027)**
Čačanašvili, A. R. *See* **Hackevič, V. H., (82a:94080)**
Chwa, Kyung Yong (*with* Hakimi, S. Louis) On fault identification in diagnosable systems. **(82h:68086)**
El Gamal, Abbas A. Two-dimensional stochastic model for interconnections in master slice integrated circuits. **(82d:94090)**
Fujiwara, Eiji *See* **Kaneda, Shigeo, (82a:94069)**
Gelenbe, Erol *See* **Boguslavskiĭ, L. B., (82e:94004)**
Genrich, H. J. (*with* Lautenbach, K.; Thiagarajan, P. S.) Substitution systems—a family of system models based on concurrency. **(82b:68086)**
Golovkin, B. A. Methods and means of parallel processing of information. (Russian) **(82a:68043)**
Gorcev, A. M. (*with* Pottosina, S.) Structural adaptation of a two-line queuing system with an auxiliary device. **(82d:68028)**
Hackevič, V. H. (*with* Čačanašvili, A. R.) Questions of the construction of one-parameter two-stage nonpositional codes. (Russian) **(82a:94080)**
Hakimi, S. Louis *See* **Chwa, Kyung Yong, (82h:68086)**
(Händler, Wolfgang) *See* **CONPAR, (82e:68002)**
Hasegawa, Toshiharu *See* **Watanabe, Masanobu; et al., (*See* 82m:94001)**
Huang, Chao H. *See* **Taylor, Fredrick J., (82a:94013)**
Jaffe, Jeffrey M. Bottleneck flow control. **(82h:68030)**
Kaneda, Shigeo (*with* Fujiwara, Eiji) Single byte error correcting-double byte error detecting codes for memory systems. **(82a:94069)**
Karpovsky, Mark Testing for numerical computations. **(82h:68010)**
Klimov, V. E. (*with* Neevina, N. P.) An algorithm for stacking a planar graph on concentric circles. (Russian) **(82a:68122)**
(Kočevaja, V. A.) *See* **Some questions of the optimal realization of algorithms, (82e:68011)**
Kung, H. T. *See* **Brent, Richard P., (82i:68027)** *and* **Yannakakis, Mihalis; et al., (*See* 82a:68004)**
Kutschke, Karl-Heinz Zur Komposition und Dekomposition einer Klasse von Programmoduln. (Russian and English summaries) **(82a:68013)**
Lautenbach, K. *See* **Genrich, H. J.; et al., (82b:68086)**
Lee, Hikyu *See* **Arden, Bruce W., (82b:68053)**
Maggiolo-Schettini, Andrea (*with* Wedde, Horst; Winkowski, Józef) Modeling a solution for a control problem in distributed systems by restrictions. **(82e:68028)**
Miyahara, H. *See* **Watanabe, Masanobu; et al., (*See* 82m:94001)**
Motoori, Mitsuo *See* **Yasui, Kazumi; et al., (82a:90066)**
Nakagawa, Toshio *See* **Yasui, Kazumi; et al., (82a:90066)**
Nassimi, David (*with* Sahni, Sartaj) Finding connected components and connected ones on a mesh-connected parallel computer. **(82e:68069)**
Neevina, N. P. *See* **Klimov, V. E., (82a:68122)**
Novoselov, A. P. *See* **Belonogov, G. G., (82a:94028)**
Osaki, S. *See* **Ae, Tadashi, (*See* 82m:94001)**
Papadimitriou, Christos H. *See* **Yannakakis, Mihalis; et al., (*See* 82a:68004)**
Pottosina, S. *See* **Gorcev, A. M., (82d:68028)**
Rao, T. R. N. *See* **Bose, Bella, (82a:94084)**
Rao, V. V. *See* **Reddy, D. Raghu Ram, (82m:94015)**
Reddy, D. Raghu Ram (*with* Rao, V. V.) Two-dimensional chirp z-transform. (German and French summaries) **(82m:94015)**
Sahni, Sartaj *See* **Nassimi, David, (82e:68069)**
Sawa, Yoshiya *See* **Yasui, Kazumi; et al., (82a:90066)**
Schröck, Werner Ein Modell zur Konstruktion optimaler Konfigurationen von Rechensystemen. [A model for constructing optimal configurations of computing systems] **(82i:94038)**
Shapiro, R. M. The application of general net theory—a personal history. **(82b:94049)**
Siegel, Howard Jay Partitioning permutation networks: the underlying theory. **(82d:94081)**
Skljarevič, F. A. Allowance for structural variability of computer systems. **(82h:68057)**
Soi, Inder M. (*with* Aggarwal, K. K.) On shortest-path algorithms in the topological design of computer networks: a comparative study. **(82m:68090)**
(Swartzlander, Earl E., Jr.) *See* **Computer arithmetic, (82c:68003)**
Taylor, Fredrick J. (*with* Huang, Chao H.) A floating-point residue arithmetic unit. **(82a:94013)**
Thiagarajan, P. S. *See* **Genrich, H. J.; et al., (82b:68086)**
Watanabe, Masanobu (*with* Miyahara, H.; Hasegawa, Toshiharu) Queueing analysis of integrated switched networks. (*See* **82m:94001**)
Wedde, Horst *See* **Maggiolo-Schettini, Andrea; et al., (82e:68028)**
Winkowski, Józef *See* **Maggiolo-Schettini, Andrea; et al., (82e:68028)**
Yannakakis, Mihalis (*with* Papadimitriou, Christos H.; Kung, H. T.) Locking policies: safety and freedom from deadlock. (*See* **82a:68004**)
Yao, Kung Quadratic-exponential moment error bounds for digital communication systems. **(82a:94007)**
Yasui, Kazumi (*with* Motoori, Mitsuo; Nakagawa, Toshio; Sawa, Yoshiya) Reliability analysis of an inspection policy and its application to a computer system. (Japanese. English summary) **(82a:90066)**
Yuen, C. K. *See* **Beauchamp, K. G., (82j:94006)**
Arithmetic ★Computer arithmetic. **(82c:68003)**
Computer arithmetic ★Computer arithmetic. **(82c:68003)**
Computer science ★CONPAR 81. **(82e:68002)**
Conference:
Analysing Problem Classes and Programming for Parallel Computing ★CONPAR 81. **(82e:68002)**
CONPAR ★CONPAR 81. **(82e:68002)**
Nuremberg ★CONPAR 81. **(82e:68002)**
Some questions of the optimal realization of algorithms ★Некоторые вопросы оптимальной реализации алгоритмов. (Russian) [Some questions of the optimal realization of algorithms] **(82e:68011)**

68Bxx Software

secondary classifications:

Böhm, Corrado Logic and computers. (*See* **82f:03002**)
(Händler, Wolfgang) *See* **CONPAR, (82e:68002)**
Computer science ★CONPAR 81. **(82e:68002)**
Conference:
Analysing Problem Classes and Programming for Parallel Computing ★CONPAR 81. **(82e:68002)**
CONPAR ★CONPAR 81. **(82e:68002)**
Evaluation of mathematical softwares ★Evaluation of mathematical softwares. (Japanese) **(82h:68001)**
Mathematical software ★Evaluation of mathematical softwares. (Japanese) **(82h:68001)**
Nuremberg ★CONPAR 81. **(82e:68002)**
Symposium:
Evaluation of Mathematical Softwares ★Evaluation of mathematical softwares. (Japanese) **(82h:68001)**

68B05 General theory of programming

Abramov, S. A. Models of sets of sequences and program verification. (Russian) **82g:68011**
Backus, John The algebra of functional programs: function level reasoning, linear equations, and extended definitions. **82j:68003**
Bird, R. S. Tabulation techniques for recursive programs. **82k:68007**
Borisenko, V. I. ★Трансляция схем программ в схемы потоков данных. (Russian) [Translation of program schemes into data flow networks] **82m:68010**
Burstall, R. M. Electronic category theory. **82a:68011**
Cherniavsky, J. C. Erratum to: "Function iteration logics and flowchart schemata" [Computing **14** (1975), no. 3, 285–312; MR **53** #14962]. **82h:68005**
(Hajnal, András) *See* **Péter, Rózsa, 82m:68013**
Harf, M. Ja. *See* **Tyugu, È. H., 82f:68013**
Hehner, Eric C. R. Bunch theory: a simple set theory for computer science. **82d:68007**
Horn, Dietmar Eine Sprache zur Beschreibung von mathematischen Programmsystemen. **82g:68012**
Jacob, Gérard Élèments de la théorie algébrique des arbres. (English summary) **82e:68008**
Jones, Neil D. (*with* Muchnick, Steven S.) Flow analysis and optimization of LISP-like structures. **82a:68012**
(Juhász, István) *See* **Péter, Rózsa, 82m:68013**
Kawabata, Sukemitsu *See* **Takasu, Satoru, 82i:68009**
(Koševaja, V. A.) *See* **Some questions of the optimal realization of algorithms, 82e:68011**
Kutschke, Karl-Heinz Zur Komposition und Dekomposition einer Klasse von Programmoduln. (Russian and English summaries) **82a:68013**
Lynch, Nancy A. Straight-line program length as a parameter for complexity measures. **82e:68009**
Maggiolo-Schettini, Andrea An algebraic theory of structures and their derivations. (Italian) **82e:68010**
Muchnick, Steven S. *See* **Jones, Neil D., 82a:68012**
Nigijan, S. A. Reducibility to free schemes. **82f:68011**
Ostasiewicz, Walenty A new approach to fuzzy programming. **82m:68011**
Perminov, O. N. Mechanical programming procedures. **82m:68012**
Péter, Rózsa ★Recursive functions in computer theory. **82m:68013**
Pnueli, Amir (*with* Zarhi, R.) Realizing an equational specification. (*See* **82i:68003**)
Poigné, Axel Using least fixed points to characterize formal computations of nondeterministic equations. (*See* **82f:68005**)
Popplestone, R. J. Relational programming. **82h:68006**
Pratt, Vaughan R. A near-optimal method for reasoning about action. **82a:68014**

Probert, Robert L. On the optimal placement of software monitors. **82f:68012**
Razumovskiĭ, S. N. A system for synthesis of algorithms ensuring a specified accuracy of computations. **82m:68014**
Salwicki, Andrzej On the algorithmic theory of stacks. **82g:68013**
Schneider, Hans-Jürgen Set-theoretic concepts in programming languages and their implementation. **82h:68007**
Schröck, Werner Zur Verbesserung des Lokalitätsverhaltens von Programmen durch optimale Zerlegung der Programmgraphen. **82g:68014**
Schwarz, Jerald Using annotations to make recursion equations behave. **82m:68015**
Šukurjan, Ju. G. (*with* Ter-Akopov, A. K.) Table programs and discrete transformers. I. (Russian. English summary) **82d:68008a**
Table programs and discrete transformers. II. (Russian. English summary) **82d:68008b**
Szymanski, Thomas G. Assembling code for machines with span-dependent instructions. **82g:68015**
Takasu, Satoru (*with* Kawabata, Sukemitsu) A logical basis for programming methodology. **82i:68009**
Ter-Akopov, A. K. *See* **Šukurjan, Ju. G., 82d:68008a**
Tuzov, V. A. A method of describing programming languages. (Russian) **82h:68008**
Tyugu, Ė. H. (*with* Harf, M. Ja.) Algorithms of structured synthesis of programs. **82f:68013**
Verhelst, Paul ★Some thoughts on a tuple oriented programming system. **82m:68016**
Zarhi, R. *See* **Pnueli, Amir,** (*See* **82i:68003**)
Some questions of the optimal realization of algorithms ★Некоторые вопросы оптимальной реализации алгоритмов. (Russian) [Some questions of the optimal realization of algorithms] **82e:68011**

secondary classifications:

(Astesiano, Egidio) *See* **CAAP '81, (82f:68002)**
(Böhm, Corrado) *See* **CAAP '81, (82f:68002)**
Brandwajn, Alexandre (*with* Hernandez, Jean-Alain) A study of a mechanism for controlling multiprogrammed memory in an interactive system. **(82e:68026)**
Davio, Marc (*with* Thayse, André) Implementation and transformation of algorithms based on automata. I. Introduction and elementary optimization problems. **(82j:68020a)**
(Díaz, Josep) *See* **Formalization of programming concepts, (82f:68005)**
Hernandez, Jean-Alain *See* **Brandwajn, Alexandre, (82e:68026)**
Ibarra, Oscar H. (*with* Leininger, Brian S.) Characterizations of Presburger functions. **(82k:68008)**
Korjačko, V. P. (*with* Kurčidis, V. A.) On packing of graphs of programs. **(82g:68061)**
Kožokar', S. K. Formal representation of scattered contexts. (Russian) **(82a:68144)**
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Leininger, Brian S. *See* **Ibarra, Oscar H., (82k:68008)**
Mirkowska, Grażyna Model existence theorem in algorithmic logic with nondeterministic programs. **(82e:03024)**
Nielsen, Mogens (*with* Plotkin, Gordon D.; Winskel, Glynn) Petri nets, event structures and domains. I. **(82b:68049)**
Plotkin, Gordon D. *See* **Nielsen, Mogens; et al., (82b:68049)**
(Ramos, Isidro) *See* **Formalization of programming concepts, (82f:68005)**
Riccardi, Gregory A. The independence of control structures in abstract programming systems. **(82m:03061)**
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Sanchez, E. (*with* Thayse, André) Implementation and transformation of algorithms based on automata. III. Optimization of evaluation programs. **(82j:68020c)**
Sanderson, John G. ★A relational theory of computing. **(82m:68004)**
(Scott, Dana S.) *See* **Stoy, Joseph E., (82m:68003)**
Stoy, Joseph E. ★Denotational semantics: the Scott-Strachey approach to programming language theory. **(82m:68003)**
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Winskel, Glynn *See* **Nielsen, Mogens; et al., (82b:68049)**
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Algebra ★CAAP '81. **(82f:68002)**
CAAP '81 ★CAAP '81. **(82f:68002)**
Colloquium:
Formalization of Programming Concepts ★Formalization of programming concepts. **(82f:68005)**
Trees in Algebra and Programming ★CAAP '81. **(82f:68002)**
Computer science ★Formalization of programming concepts. **(82f:68005)**
Formalization of programming concepts ★Formalization of programming concepts. **(82f:68005)**
Genoa ★CAAP '81. **(82f:68002)**
Peñíscola ★Formalization of programming concepts. **(82f:68005)**
Programming ★CAAP '81. **(82f:68002)**

68B10 Analysis of programs (schemata, semantics, correctness, etc.)

Andréka, Hajnal (*with* Németi, István; Sain, Ildikó) Program verification within and without logic. **82b:68005**
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(*with* Meertens, Lambert G. L. T.) Completeness with finite systems of intermediate assertions for recursive program schemes. **82j:68004**
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Back, Ralph-Johan On the notion of correct refinement of programs. **82m:68020**
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Cook, Curtis R. Graph-theoretic program complexity measures. **82a:68017**
Cook, Stephen A. Corrigendum: "Soundness and completeness of an axiom system for program verification" [SIAM J. Comput. **7** (1978), no. 1, 70–90; MR **58** #13843]. **82h:68011**
Costa, Gerardo *See* **Astesiano, Egidio, 82h:68006** *and* (*See* **82f:68005**)
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Kasatkina, I. V. ★Об одном методе семантического контроля правильности программ в автоматизированных обучающих системах. (Russian) [A method of semantic verification of program correctness in computerized instruction systems] **82m:68024**
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Semantics of probabilistic programs. **82i:68011**
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Manna, Zohar *See* **Dershowitz, Nachum, 82c:68010**
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Miller, Jill (*with* Rus, Teodor) Abstract data types in communication system languages. **82a:68024**
Moore, Daniel J. (*with* Russell, Bruce) Axiomatic data type specifications: a first order theory of linear lists. **82j:68007**
Mori, Masaaki (*with* Taniguchi, Kenichi; Kasami, Tadao; Fujii, Mamoru) Formal verification of a class of concurrent programs. **82m:68027**
Murata, Tadao Synthesis of decision-free concurrent systems for prescribed resources and performance. **82d:68012**
Németi, István *See* **Andréka, Hajnal; et al., 82b:68005**
(Neuhold, E. J.) *See* **Pritchard, Paul, 82j:68008**
Nigam, Anil *See* **Feldman, Jerome A., 82a:68020**
Nikitčenko, N. S. *See* **Byč', V. V.; et al., 82a:68015**
Nishimura, Hirokazu Descriptively complete process logic. **82b:68012**
Nivat, Maurice Infinite words, infinite trees, infinite computations. **82e:68015**
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Perrin, Guy-René Conception, écriture et vérification de programmes parallèles. (English summary) [Formulation, writing and verification of parallel programs] **82k:68010**
Pliuškevičius, R. A. Some questions of the structural theory of proofs of program correctness. (Russian) **82a:68025**
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Pritchard, Paul Comments on a paper by E. J. Neuhold and R. Studer: "The use of Hoare's method of program verification for the quick-sort algorithm" [Computing **18** (1977), no. 4, 281–293; MR **56** #13753]. (German summary) **82j:68008**
Raoult, Jean-Claude (*with* Vuillemin, Jean E.) Operational and semantic equivalence between recursive programs. **82e:68016**
Rasiowa, Helena Algorithmic logic and its extensions, a survey. **82m:68029**
Reisig, Wolfgang Interactive schemes. (*See* **82k:68003**)
Robinet, B. Les langages de Backus sont des systèmes de manipulation d'arbres. **82g:68018**
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Rus, Teodor *See* **Miller, Jill, 82a:68024**
Russell, Bruce *See* **Moore, Daniel J., 82j:68007**
Sain, Ildikó *See* **Andréka, Hajnal; et al., 82b:68005**
Schmidt, Günter Programs as partial graphs. I. Flow equivalence and correctness. **82k:68011a**
Programs as partial graphs. II. Recursion. **82k:68011b**
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Taniguchi, Kenichi *See* **Mori, Masaaki; et al., 82m:68027**
Tiuryn, Jerzy Unique fixed points vs. least fixed points. **82c:68012**
Tokuda, Takehiro Eliminating unit reductions from LR(k) parsers using minimum contexts. **82i:68012**
Trahtenbrot, B. A. Semantics and logic of algorithmic languages. (Russian) **82e:68018**
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Williams, John H. Formal representations for recursively defined functional programs. **82j:68009**
Würges, Harald A specification technique based on predicate transformers. **82i:68013**
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Abramov, S. A. Models of sets of sequences and program verification. (Russian) **(82g:68011)**
Adachi, Akeo *See* **Kasai, Takumi, (82a:68076)**
Anisimov, A. V. Discrete backtracking converters. **(82h:68079)**
Aspvall, Bengt (*with* Shiloach, Yossi) A polynomial time algorithm for solving systems of linear inequalities with two variables per inequality. (*See* **82a:68004**)
(*with* Shiloach, Yossi) A polynomial time algorithm for solving systems of linear inequalities with two variables per inequality. **(82a:68052)**
Barstow, David R. Remarks on: "A synthesis of several sorting algorithms" [Acta Inform. **11** (1978/79), no. 1, 1–30; MR 80e:68024] by J. Darlington. **(82a:68053)**
Bergman, Marc (*with* Deransart, Pierre) Abstract data types and rewriting systems: application to the programming of algebraic abstract data types in PROLOG. **(82h:68018)**
Berman, Francine A completeness technique for D-axiomatizable semantics. **(82c:03018)**
Bowen, Kenneth A. Interpolation in loop-free logic. **(82c:03020)**
Cartwright, Robert (*with* McCarthy, John) First order programming logic. **(82e:68030)**
Courcelle, Bruno Attribute grammars: theory and applications. **(82g:68066)**
Čulík, Karel Entry strong components and their application (in computer science). **(82f:68064)**
(Darlington, John) *See* **Barstow, David R., (82a:68053)**
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Frolov, G. D. *See* **Krinickiĭ, N. A.; et al., (82c:68001)**
Fujiwara, Hideo (*with* Kinoshita, Kozo) A design of programmable logic arrays with universal tests. **(82m:94056)**
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(Harin, V.) *See* **Krinickiĭ, N. A.; et al., (82c:68001)**
Holbeche, J. *See* **King, Robert A., (82e:94044)**
Kasai, Takumi (*with* Adachi, Akeo) A characterization of time complexity by simple loop programs. **(82a:68076)**
King, Robert A. (*with* Holbeche, J.) Impact of entropic coding on the time delays associated with time-encoded speech (TES) systems. **(82e:94044)**
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Kozen, Dexter (*with* Parikh, Rohit) An elementary proof of the completeness of PDL. **(82d:03028)**
Koževnikova, G. P. (*with* Kostyrko, V. S.; Melen', L. M.; Tal'janskaja, O. I.) A method of computer modeling of the analysis of algorithm complexity. (Russian) **(82e:68040)**
Krinickiĭ, N. A. (*with* Mironov, G. A.; Frolov, G. D.) ★Programmation et langages symboliques. (French) [Programming and algorithmic languages] **(82c:68001)**
Kristensen, Bent Bruun (*with* Madsen, Ole Lehrmann) Diagnostics on LALR(k) conflicts based on a method for LR(k) testing. **(82m:68121)**
Ljapunov, A. A. ★Проблемы теоретической и прикладной кибернетики. (Russian) [Problems of theoretical and applied cybernetics] **(82d:01042)**
Madsen, Ole Lehrmann *See* **Kristensen, Bent Bruun, (82m:68121)**
Manna, Zohar (*with* Waldinger, Richard) A deductive approach to program synthesis. **(82j:68094)**
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Ntafos, Simeon C. (*with* Hakimi, S. Louis) On structured digraphs and program testing. **(82j:68064)**
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Perl, Jürgen Reachability homomorphisms on graphs. (German summary) **(82h:68093)**
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Pratt, Vaughan R. A near-optimal method for reasoning about action. **(82a:68014)**
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Schröck, Werner Zur Verbesserung des Lokalitätsverhaltens von Programmen durch optimale Zerlegung der Programmgraphen. **(82g:68014)**
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Ljapunov, A. A. *See* **Ljapunov, A. A., (82d:01042)**

68B15 Theory of data (filing, etc.)

Afanas'ev, M. Ju. Optimization of the mode of data exchange between levels of computer storage in the solution of a complex of problems. (Russian) **82g:68019**
Aho, A. V. (*with* Sagiv, Yehoshua; Szymanski, Thomas G.; Ullman, Jeffrey D.) Inferring a tree from lowest common ancestors with an application to the optimization of relational expressions. **82h:68015**
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Al-Fedaghi, Sabah (*with* Scheuermann, Peter) Mapping considerations in the design of schemas for the relational model. **82a:68026**
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Bergman, Marc (*with* Deransart, Pierre) Abstract data types and rewriting systems: application to the programming of algebraic abstract data types in PROLOG. **82h:68018**

Bergstra, J. A. (*with* Goeman, H. J. M.; Ollongren, A.; Terpstra, G. A.; van der Weide, Th. P.) Axioms for multilevel objects. **82i:68014**

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Bert, Didier (*with* Soler, Roger) About data type genericity. (*See* **82f:68005**)

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Bolch, G. (*with* Schmidt, Bernd) Ein erweitertes Modell für Paging-Trommeln. (English summary) **82f:68019**

Broy, Manfred (*with* Wirsing, Martin) On the algebraic extensions of abstract data types. (*See* **82f:68005**)

Calenko, M. Š. Philosophy and mathematics of the modelling of data processing processes (on the example of relational models of data bases). (Russian) **82a:68028**
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Tamir, A. *See* **Megiddo, N.; et al., (82j:68063)**

Tanimoto, Steven L. *See* **Fowler, Robert J.; et al., (82e:05112)**

Tao, Ren Ji On the computational power of automata with time or space bounded by Ackermann's or superexponential functions. **(82m:68093)**

Tarasov, S. P. *See* **Kozlov, M. K.; et al., (82c:90070)**

Tarjan, Robert Endre *See* **Gabow, Harold N., (82h:68056)**; **Lipton, Richard J., (82e:68067)** *and* **Brown, Mark R., (82e:68101)**

Toussaint, G. T. *See* **Devroye, Luc, (82i:52008)**

Tsai, Long Lieh *See* **Chin, Francis Y., (82m:90087)**

Tsukiyama, Shuji (*with* Shirakawa, Isao; Ozaki, H.; Ariyoshi, Hiromu) An algorithm to enumerate all cutsets of a graph in linear time per cutset. **(82a:68132)**

Ulanov, G. M. *See* **Petrov, B. N.; et al., (82h:93064)**

Ul'janov, S. V. *See* **Petrov, B. N.; et al., (82h:93064)**

Urmetzer, N. *See* **Monien, Burkhard; et al., (82e:90065)**

Valiant, Leslie G. *See* **Lev, Gavriela Freund; et al., (82m:68055)**

Vardi, M. Y. *See* **Beeri, Catriel, (*See* 82i:68003)**

Volkov, A. A. (*with* Minaev, Ju. N.) Use of the heuristic self-organization principle in synthesizing solution algorithms for optimization problems in computer systems. **(82m:90123)**

Vornberger, O. *See* **Monien, Burkhard; et al., (82e:90065)**

Vuillemin, Jean E. A representation of linear lists with good average time performance. (*See* **82e:94002**)

Waack, Stephan ★Tape complexity of word problems. **(82m:20040)**

Wagstaff, Samuel S., Jr. The computational complexity of solving exponential congruences. **(82k:10009)**

Watanabe, Toshimasa (*with* Ae, Tadashi; Nakamura, Akira) On the removal of forbidden graphs by edge-deletion or by edge-contraction. **(82k:05097)**
Wegman, Mark N. *See* **Blum, Manuel; et al., (82d:68022)**
Werschulz, Arthur G. Maximal order for multipoint methods with memory using Hermitian information. **(82k:65038)**
Winograd, Shmuel On multiplication of polynomials modulo a polynomial. **(82j:12001)**
Witzgall, Christoph *See* **Shier, Douglas R., (82j:68067)**
Wong, C. K. *See* **Chung, K. M.; et al., (82a:68029); (82a:68178)** *and* **Gupta, U. I.; et al., (82m:68136)**
Wong, Richard T. *See* **Golden, Bruce L., (82j:90030)**
Yacobi, Yacov *See* **Even, Shimon, (82a:94085)**
Yannakakis, Mihalis *See* **Sagiv, Yehoshua, (82a:68038)**
Yao, Andrew Chi Chih An analysis of $(h, k, 1)$-Shellsort. **(82a:68118)**
Zemel, Eitan *See* **Megiddo, N.; et al., (82j:68063)**

68C30 Computable functions, unsolvability

Callegarin, G. (*with* Pacini, G.) About the implementability and the power of equationally defined data abstractions. **82e:68046**
Gati, Georg Some elements of a Galois theory of the structure and complexity of the tree automorphism problem. **82k:68073**
Karpiński, Marek ★The ultimate equivalence of iterated homomorphisms is recursively unsolvable. **82j:68027**
Pacini, G. *See* **Callegarin, G., 82e:68046**
Tao, Ren Ji On the computational power of automata with time or space bounded by Ackermann's or superexponential functions. **82m:68093**

secondary classifications:

Blattner, Meera The decidability of the equivalence of context-free grammar forms. (*See* **82a:68004**)
Falkinger, Josef Reduzierbarkeit von berechenbaren Numerierungen von P_1. **(82k:03081a)**
Universalität von berechenbaren Numerierungen von partiell rekursiven Funktionen. **(82k:03081b)**
Kateřiňák, Josef The theory of finite structures of G-numbers. (Czech) **(82k:03098)**
Lischke, Gerhard Two types of properties for complexity measures. **(82f:68050)**
Lukavcová, Milena On computable real functions. **(82d:03098)**
Makarov, I. I. A theorem on the unprovability of lower time estimates for a certain class of functions. (Russian) **(82c:03062)**
Manin, Ju. I. ★Вычислимое и невычислимое. (Russian) [Computable and noncomputable] **(82i:03002)**
Meseguer Guaita, José Varieties of chain-complete algebras. **(82g:18005)**
Monien, Burkhard Connections between the LBA problem and the knapsack problem. **(82g:68051)**
Nepeivoda, N. N. Stable truth and computability. (Russian) **(82f:03052)**
Nivat, Maurice Infinite words, infinite trees, infinite computations. **(82e:68015)**
O'Donnell, Michael A practical programming theorem which is independent of Peano arithmetic. **(82i:03066)**
Reiser, Angelika (*with* Weihrauch, Klaus) Natural numberings and generalized computability. (German and Russian summaries) **(82b:03083)**
Selivanov, V. L. Index sets of computable classes of finite sets. (Russian) **(82b:03077)**
Sen', A. H. The axiomatic approach to the theory of algorithms and relative computability. (Russian. English summary) **(82b:03087)**
Smith, Carl H. Applications of classical recursion theory to computer science. **(82h:03089)**
Weihrauch, Klaus *See* **Reiser, Angelika, (82b:03083)**

68C40 Turing machines, abstract processors [See also 03D10.]

Book, Ronald V. (*with* Brandenburg, Franz-Josef) Equality sets and complexity classes. **82h:68074**
Brandenburg, Franz-Josef *See* **Book, Ronald V., 82h:68074**
Freivalds, Rūsiņš Fast probabilistic algorithms. **82a:68089**
Inoue, Katsushi (*with* Takanami, Itsuo) Erratum: "A note on deterministic three-way tape-bounded two-dimensional Turing machines" [Inform. Sci. **20** (1980), no. 1, 41–55; MR 80i:68039]. **82f:68053**
Liu, Chung L. *See* **Liu, Jane W. S.; et al., 82e:68047**
Liu, Jane W. S. (*with* Liu, Chung L.; Miyazaki, Nabuyoshi; Yamazaki, Haruaki) Performance evaluation of multiprocessor systems containing special purpose processors. (Polish and Russian summaries) **82e:68047**
Miyazaki, Nabuyoshi *See* **Liu, Jane W. S.; et al., 82e:68047**
Monien, Burkhard Connections between the LBA problem and the knapsack problem. **82g:68051**
Paul, Wolfgang J. (*with* Prauß, Ernst-Jürgen; Reischuk, Rüdiger) On alternation. **82e:68048a**
(*with* Reischuk, Rüdiger) On alternation. II. A graph-theoretic approach to determinism versus nondeterminism. **82e:68048b**
Prauß, Ernst-Jürgen *See* **Paul, Wolfgang J.; et al., 82e:68048a**
Reischuk, Rüdiger *See* **Paul, Wolfgang J.; et al., 82e:68048**
Schönhage, A. Storage modification machines. **82b:68040**
Simon, Janos On tape-bounded probabilistic Turing machine acceptors. **82i:68032**
Takanami, Itsuo *See* **Inoue, Katsushi, 82f:68053**
Yamazaki, Haruaki *See* **Liu, Jane W. S.; et al., 82e:68047**
Zolotova, N. V. Recursive schemes. (Russian) (*See* **81c:00007**)

secondary classifications:

Adleman, Leonard M. (*with* Loui, Michael C.) Space-bounded simulation of multitape Turing machines. **(82g:03071)**
Brandstädt, Andreas Über den Einfluß eines zusätzlichen Einweg-Eingabebandes bei Entscheidungen und Aufzählungen mit beschränktem Regime sowie beschränkter Rückkehr bzw. beschränkter dualer Rückkehr auf einbändrigen Turingmaschinen. **(82a:68067)**
Dëgtev, A. N. Nonerasing Turing machines. (Russian) **(82c:03060)**
Dresher, Melvin (*with* Moglewer, Sidney) Statistical acceptance sampling in a competitive environment. **(82d:90048)**
Ehrig, Hartmut (*with* Mahr, Bernd) Complexity of algebraic implementations for abstract data types. **(82m:68083)**
Fitting, Melvin C. An axiomatic approach to computers. **(82k:03077)**
Georgeff, M. P. Interdependent translation schemes. **(82f:68078)**
Grigoraş, Gh. On the completeness in abstract complexity classes of languages. **(82e:68075)**
Gurari, Eitan M. (*with* Ibarra, Oscar H.) Path systems: constructions, solutions and applications. **(82f:68048)**
Ibarra, Oscar H. *See* **Gurari, Eitan M., (82f:68048)**
Jaffe, Jeffrey M. The equivalence of r.e. program schemes and data flow schemes. **(82j:68006)**
Klosinski, Leonard F. *See* **Smolarski, Dennis C., (82i:10013)**
Kozen, Dexter Indexings of subrecursive classes. **(82a:03035)**
Long, Timothy J. On γ-reducibility versus polynomial time many-one reducibility. **(82e:68041)**
Loui, Michael C. A space bound for one-tape multidimensional Turing machines. **(82i:68052)**
See also **Adleman, Leonard M., (82g:03071)**
Lovász, László Efficient algorithms: an approach by formal logic. **(82e:68042)**
Mahr, Bernd *See* **Ehrig, Hartmut, (82m:68083)**
Micali, Silvio Two-way deterministic finite automata are exponentially more succinct than sweeping automata. **(82d:68034)**
Moglewer, Sidney *See* **Dresher, Melvin, (82d:90048)**
Moščenskiĭ, V. A. Turing a-computations and essential complexity of a-inversions of binary words. (Russian) **(82j:68023)**
Rogožin, Ju. V. Universal one-place partial recursive functions. (Russian) **(82j:03046)**
Ruzzo, Walter L. On uniform circuit complexity. **(82j:68024)**
Simon, Janos Division in idealized unit cost RAMs. **(82i:68030)**
Smolarski, Dennis C. (*with* Klosinski, Leonard F.) Recognition algorithms for Fibonacci numbers. **(82i:10013)**
Šukurjan, Ju. G. (*with* Ter-Akopov, A. K.) Table programs and discrete transformers. I. (Russian. English summary) **(82d:68008a)**
Table programs and discrete transformers. II. (Russian. English summary) **(82d:68008b)**
Ter-Akopov, A. K. *See* **Šukurjan, Ju. G., (82d:68008a)**
Tompa, Martin An extension of Savitch's theorem to small space bounds. **(82d:68035)**

68C99 None of the above, but in this section

Courcelle, Bruno (*with* Raoult, Jean-Claude) Completions of ordered magmas. **82h:68041**
Huet, Gérard Confluent reductions: abstract properties and applications to term rewriting systems. **82a:68090**
Lehmann, Daniel J. On the algebra of order. **82b:68042**
Lester, Bruce P. Performance evaluation of asynchronous, modular systems. **82m:68094**
Mylopoulos, John *See* **Peacocke, Richard, 82m:68095**
Peacocke, Richard (*with* Mylopoulos, John) A region-based formalism for picture processing. **82m:68095**
Raoult, Jean-Claude *See* **Courcelle, Bruno, 82h:68041**
Tchuente, Maurice Sur l'élimination itérative des situations de blocage dans un système. (English summary) **82g:68052**
Zadeh, Lotfi A. A fuzzy-algorithmic approach to the definition of complex or imprecise concepts. **82k:68021**

secondary classifications:

Akušskiĭ, I. Ja. (*with* Burcev, V. M.; Pak, I. T.) Algorithms for multiplication using a kernel characteristic. (Russian) **(82e:65048)**
Burcev, V. M. *See* **Akušskiĭ, I. Ja.; et al., (82e:65048)**
Courtois, P.-J. (*with* Semal, P.) An algorithm for the optimization of nonbifurcated flows in computer communication networks. **(82m:90069)**
Dragalin, A. G. Functional algebraic models. (Russian) **(82g:03101)**
Ettl, Wolfgang (*with* Leitsch, Alexander) Aufzählung subrekursiver Klassen und konstruierende Automaten. **(82c:03059)**
Fischer, Elliott A theoretical measure of cryptographic performance. **(82i:94033)**
Leitsch, Alexander *See* **Ettl, Wolfgang, (82c:03059)**
Makowsky, J. A. Measuring the expressive power of dynamic logics: an application of abstract model theory. **(82c:03022)**
Pak, I. T. *See* **Akušskiĭ, I. Ja.; et al., (82e:65048)**
Scott, Dana S. Lambda calculus: some models, some philosophy. **(82d:03024)**
Relating theories of the λ-calculus. **(82d:03025)**
Semal, P. *See* **Courtois, P.-J., (82m:90069)**
Stokłosa, Janusz (*with* Żakowski, Wojciech) Computations of (a, K)-machines. **(82m:68105)**
Żakowski, Wojciech *See* **Stokłosa, Janusz, (82m:68105)**

68Dxx Automata [See also 03D05, 18B20, 68F10.]

secondary classifications:

Hartmanis, Juris Observations about the development of theoretical computer science. **(82g:68002)**
Fundamental theories and applications of mathematical information science
★Fundamental theories and applications of mathematical information science. (Japanese) **(82g:68004)**

Symposium:
Fundamental Theories and Applications of Mathematical Information Science
★Fundamental theories and applications of mathematical information science. (Japanese) **(82g:68004)**

68D05 General theory

Bektaev, S. K. Assignment of adjacency graph of an asynchronous automaton. **82h:68075**
Bergandy, Jan The procedure for determining connectivity of some subautomata of automata. **82a:68091**
Bolotov, A. A. On problems of reducibility and expressibility for homogeneous structures with inputs and outputs. (Russian) **82k:68022**
Gallier, Jean H. DPDAs in "atomic normal form" and applications to equivalence problems. **82f:68054**
Gössel, Michael (*with* Pöschel, Reinhard) Invariant relations for automata—a proposal. (German and Russian summaries) **82m:68096**
Grunskiĭ, I. S. (*with* Ponomarenko, G. G.) A criterion of finiteness of a class of automata indistinguishable by a simple experiment. (Russian) **82m:68097**
Haraguchi, Makoto (*with* Iimori, Sueo) Representation systems of automata by their texts. **82m:68098**
Iimori, Sueo *See* **Haraguchi, Makoto, 82m:68098**
Kinber, E. B. On inclusion problem for deterministic multitape automata. **82f:68055**
Lemberskiĭ, I. G. Allowance for functional dependence of code combinations in optimization of two-level logical structure of automata. **82a:68092**
Lisovik, L. P. Recursive-determinate abstract automata. **82k:68023**
Nishio, Hidenosuke Series of graphs generated by rational machines. **82k:68024**
Plaksin, V. A. Weak equivalence of finite automata. **82f:68056**
Ponomarenko, G. G. *See* **Grunskiĭ, I. S., 82m:68097**
Pöschel, Reinhard *See* **Gössel, Michael, 82m:68096**
Rytter, Wojciech Functional automata. **82e:68049**
Skobelev, V. G. Some problems of enumeration of finite automata. (Russian. English summary) **82m:68099**
Tchuente, Maurice Sur l'auto-stabilisation dans un réseau d'ordinateurs. (English summary) **82d:68037**
Vallander, S. S. One system of automata with local interactions. **82m:68100**
Vianu, Victor Some topics in formal languages theory viewed from the standpoint of measure theory. **82h:68076**
Zahnd, Jacques ★Machines séquentielles. (French) [Sequential machines] **82k:68025**
Traité d'Électricité *See* **Zahnd, Jacques, 82k:68025**

secondary classifications:

Constable, Robert L. The role of finite automata in the development of modern computing theory. **(82k:03059)**
Davio, Marc (*with* Thayse, André) Implementation and transformation of algorithms based on automata. I. Introduction and elementary optimization problems. **(82j:68020a)**
Dittrich, Gisbert Discrete dynamical systems in theoretical computer science. **(82k:93045)**
Inoue, Katsushi (*with* Takanami, Itsuo) Erratum: "A note on deterministic three-way tape-bounded two-dimensional Turing machines" [Inform. Sci. **20** (1980), no. 1, 41–55; MR 80i:68039]. **(82f:68053)**
Mendès-France, Michel Algebraic numbers and automata theory. (*See* **82j:10003**)
Rudnev, V. V. An interconnected graph system as a model of complex finite automata. **(82k:68038)**
Sanchez, E. (*with* Thayse, André) Implementation and transformation of algorithms based on automata. III. Optimization of evaluation programs. **(82j:68020c)**
Solymosy, Andreas Synthese von analysierenden Automaten auf Grund von formalen Grammatiken. **(82f:68084)**
Šukurjan, Ju. G. (*with* Ter-Akopov, A. K.) Table programs and discrete transformers. I. (Russian. English summary) **(82d:68008a)**
Table programs and discrete transformers. II. (Russian. English summary) **(82d:68008b)**
Takanami, Itsuo *See* **Inoue, Katsushi, (82f:68053)**
Ter-Akopov, A. K. *See* **Šukurjan, Ju. G., (82d:68008a)**
Thayse, André Implementation and transformation of algorithms based on automata. II. Synthesis of evaluation programs. **(82j:68020b)**
See also **Davio, Marc, (82j:68020a)** *and* **Sanchez, E., (82j:68020c)**
Tomita, Etsuji A branching algorithm for deciding equivalence of deterministic pushdown automata (in D_0:R_0). **(82g:68079)**
Warner, M. W. Stability of orbits in automata and control theories. **(82e:58057)**

68D15 Linear automata, sequential machines

Beckhoff, G. F. A novel approach to the state reduction problem. (French and German summaries) **82m:68101**
Braun, Robert D. (*with* Givone, Donald D.) A generalized algorithm for constructing checking sequences. **82e:68050**
Butz, Arthur R. Functions realized by consistent sequential machines. **82i:68033**
Ch'ên, Jên *See* **Das, Sunil R.; et al., 82f:68057**
Ciolac, L. *See* **Zervos, C., 82a:68097**
Courcelle, Bruno The simultaneous accessibility of two configurations of two equivalent DPDAs. **82i:68034**
Dang Huu Dao *See* **Peák, István, 82h:68077**
Das, Sunil R. (*with* Shêng, Ch'ing Lai; Ch'ên, Jên) On a matrix approach to state identification and control of finite-state machines. **82f:68057**
Dyer, Charles R. Relation of one-way parallel/sequential automata to 2-D finite-state automata. **82a:68093**
Givone, Donald D. *See* **Braun, Robert D., 82e:68050**
Gössel, Michael *See* **Wolf, Gottfried, 82c:68031**
Grabowski, Jan ★Lineare Methoden in der Theorie der Vektoradditionssysteme. III. (German) [Linear methods in the theory of vector addition systems. III] **82i:68035**
Hemmerling, Armin Concentration of multidimensional tape-bounded systems of Turing automata and cellular spaces. **82c:68030**
Itzhaik, Yair (*with* Yehudai, Amiram) A decision procedure for the equivalence of two dpdas one of which is linear (extended abstract). **82m:68102**
Peák, István (*with* Dang Huu Dao) A note on the characteristic semigroups of Mealy-automata. **82h:68077**
Pnueli, Amir (*with* Slutzki, Giora) Automatic programming of finite state linear programs. **82m:68103**
Riedemann, Elke Hagen Automatical translation of sequential programs into parallel programs. (*See* **82k:68003**)
Roucairol, Gérard P. On parallelization of "single-assignment" programs. (*See* **82k:68003**)
Saluja, K. K. *See* **Venkatraman, C. S., 82a:68096**
Shêng, Ch'ing Lai *See* **Das, Sunil R.; et al., 82f:68057**
Slutzki, Giora *See* **Pnueli, Amir, 82m:68103**
Søreng, Jan Symmetric shift registers. **82a:68094**
Úry, László Optimal decomposition of linear automata. **82a:68095**
Venkatraman, C. S. (*with* Saluja, K. K.) Transition count testing of sequential machines. **82a:68096**
Wolf, Gottfried (*with* Gössel, Michael) Stable configurations of linear and generalized linear binary cellular automata. **82c:68031**
Yehudai, Amiram *See* **Itzhaik, Yair, 82m:68102**
Zervos, C. (*with* Ciolac, L.) Note on optimal synthesis of definitely diagnosable sequential automata. (Romanian summary) **82a:68097**

secondary classifications:

Arbib, Michael A. (*with* Manes, Ernest G.) Machines in a category. **(82i:68037)**
Cohen, Rina S. (*with* Gold, Arie Y.) ω-computations on deterministic pushdown machines. **(82i:03050)**
(Fouilliart, M.) *See* **Vergez, Pierre, (82h:94031)**
Gold, Arie Y. *See* **Cohen, Rina S., (82i:03050)**
Lester, Bruce P. Performance evaluation of asynchronous, modular systems. **(82m:68094)**
Manes, Ernest G. *See* **Arbib, Michael A., (82i:68037)**
Miyano, Satoru $k+1$ heads are better than k for one-way multihead stack-counter automata. **(82e:68091)**
Vergez, Pierre ★Automates et graphes cartésiens. (French) [Automata and Cartesian graphs] **(82h:94031)**
Zeng, Guang Tong A simple method of sequential circuit synthesis. **(82f:94024)**

68D20 Tessellation automata, iterative arrays, cellular structure

Bul', E. S. *See* **Jakubaitis, È. A.; et al., 82a:68098**
Burgin, M. S. Functional equivalence of operators and parallel computation. **82m:68104**
Butler, Jon T. *See* **White, Patrick E., 82j:68028**
Čapenko, V. P. *See* **Jakubaitis, È. A.; et al., 82a:68098**
Dyer, Charles R. (*with* Rosenfeld, Azriel) Triangle cellular automata. **82h:68078**
Fricnovič, G. F. *See* **Jakubaitis, È. A.; et al., 82a:68098**
Harao, Masateru (*with* Noguchi, Shoichi) Global mapping space of cellular systems. **82i:68036**
Honda, Namio *See* **Nishitani, Yasuaki, 82e:68052**
Inoue, Katsushi (*with* Takanami, Itsuo) Erratum: "Cyclic closure properties of automata on a two-dimensional tape" [Inform. Sci. **15** (1978), no. 3, 229–242; MR 80e:68144]. **82e:68051**
Jakubaitis, È. A. (*with* Bul', E. S.; Lange, È. È.; Lemberskiĭ, I. G.; Fricnovič, G. F.; Čapenko, V. P.) Technique for synthesizing asynchronous automata employing programmable logic arrays. **82a:68098**
Kimura, Masayuki *See* **Maruoka, Akira; et al., 82f:68058**
Lange, È. È. *See* **Jakubaitis, È. A.; et al., 82a:68098**
Lemberskiĭ, I. G. *See* **Jakubaitis, È. A.; et al., 82a:68098**
Maruoka, Akira (*with* Kimura, Masayuki; Shoji, Nobuyoshi) Pattern decomposition for tessellation automata. **82f:68058**
Nishitani, Yasuaki (*with* Honda, Namio) The firing squad synchronization problem for graphs. **82e:68052**
Noguchi, Shoichi *See* **Harao, Masateru, 82i:68036**
Rosenfeld, Azriel *See* **Wu, Angela Y., 82d:68038** *and* **Dyer, Charles R., 82h:68078**
Shoji, Nobuyoshi *See* **Maruoka, Akira; et al., 82f:68058**
Stoklosa, Janusz (*with* Żakowski, Wojciech) Computations of (α, K)-machines. **82m:68105**
Takanami, Itsuo *See* **Inoue, Katsushi, 82e:68051**
White, Patrick E. (*with* Butler, Jon T.) Synthesis of one-dimensional binary scope-2 flexible cellular systems from initial final configuration pairs. **82j:68028**
Wu, Angela Y. (*with* Rosenfeld, Azriel) SIMD machines and cellular d-graph automata. **82d:68038**
Żakowski, Wojciech *See* **Stoklosa, Janusz, 82m:68105**

secondary classifications:

Brassard, J.-P. *See* **Gecsei, Jan, (82a:94130)**
Dyer, Charles R. A fast parallel algorithm for the closest pair problem. **(82h:68075)**
Fukumura, Teruo *See* **Yanase, Tatsuro; et al., (82b:68044)**
Gécseg, Ferenc (*with* Imreh, Balázs) A note on: "Some structural properties of the periodic sum of finite automata" [Found. Control Engrg. **3** (1978), no. 2, 63–69; MR 80b:68079] by Zdzisław B. Miądowicz. **(82i:68039)**
Gecsei, Jan (*with* Brassard, J.-P.) The topology of cellular partitioning networks. **(82a:94130)**
Gray, F. Gail *See* **Walters, Stephen M.; et al., (82m:68107)**
Hemmerling, Armin Concentration of multidimensional tape-bounded systems of Turing automata and cellular spaces. **(82c:68030)**
Imreh, Balázs *See* **Gécseg, Ferenc, (82i:68039)**
Inagaki, Yasuyoshi *See* **Yanase, Tatsuro; et al., (82b:68044)**

(Mądowicz, Zdzisław B.) *See* **Gécseg, Ferenc; et al., (82i:68039)**
Schmidt, Eberhard Teilalgebren zweier mehrsortiger Funktionenalgebren. I. [Subalgebras of two many-sorted function algebras. I] **(82k:03101)**
Thompson, Richard A. *See* **Walters, Stephen M.; et al., (82m:68107)**
Walters, Stephen M. (*with* Gray, F. Gail; Thompson, Richard A.) Self-diagnosing cellular implementations of finite-state machines. **(82m:68107)**
Yanase, Tatsuro (*with* Inagaki, Yasuyoshi; Fukumura, Teruo) A recurrence formula for the configuration transition relation of a nondeterministic cellular automaton and its application to the Garden of Eden problem. **(82h:68044)**

68D22 Lindenmayer systems, D0L- and D1L-systems, etc. [See also 68F10, 92A05.]

Karhumäki, Juhani Generalized Parikh mappings and homomorphisms. **82k:68026**
Kobuchi, Youichi (*with* Wood, Derick) On the complete simulation of DOL schemes and locally catenative schemes. **82m:68106**
Rozenberg, Grzegorz (*with* Salomaa, Arto) ★The mathematical theory of L systems. **82g:68053**
(*with* Vermeir, Dirk) A note on *M*-growth functions of FTOL systems with rank. **82e:68053**
Salomaa, Arto *See* **Rozenberg, Grzegorz, 82g:68053**
Sipser, Michael Lower bounds on the size of sweeping automata. **82j:68029**
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Vitányi, P. M. B. ★Lindenmayer systems: structure, languages, and growth functions. **82e:68054**
Wood, Derick *See* **Kobuchi, Youichi, 82m:68106**

secondary classifications:

Eichhorst, Peter (*with* Ruskey, Frank) On unary stochastic Lindenmayer systems. **(82h:68110)**
Jürgensen, H. (*with* Matthews, D.; Wood, Derick) Life and death in Markov deterministic tabled OL systems. **(82h:68111)**
Kobuchi, Youichi *See* **Seki, Shigeko, (82f:68082)**
Matthews, D. *See* **Jürgensen, H.; et al., (82h:68111)**
Ruskey, Frank *See* **Eichhorst, Peter, (82h:68110)**
Seki, Shigeko (*with* Kobuchi, Youichi) On DIL schemes simulated by DOL schemes. **(82f:68082)**
Wood, Derick *See* **Jürgensen, H.; et al., (82h:68111)**

68D25 Stochastic and nondeterministic automata

Brandenburg, Franz-Josef Three write heads are as good as k. **82a:68099**
Doberkat, Ernst-Erich Good state transition policies for nondeterministic and stochastic automata. **82j:68030**
Èidel'man, S. D. *See* **Lobanov, L. P.; et al., 82c:68032**
Ezrohi, O. Ì. *See* **Lobanov, L. P.; et al., 82c:68032**
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Gabbasov, N. Z. (*with* Murmazina, T. A.) Improvement of an estimate of a reduction theorem of Rabin. (Russian) **82e:68055**
Gould, Jerren (*with* Wegman, Edward J.) On probabilistic automata in deterministic environment. **82a:68100**
On stability of probabilistic automata in environments. **82g:68054**
Gurari, Eitan M. (*with* Ibarra, Oscar H.) The complexity of decision problems for finite-turn multicounter machines. **82j:68031a**
(*with* Ibarra, Oscar H.) The complexity of decision problems for finite-turn multicounter machines. **82j:68031b**
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Janicki, Sławomir Sets generated by stochastic automata of Markov's chain type. **82e:68056**
Kurdumov, G. I. An algorithm-theoretic method for the study of uniform random networks. **82j:68033**
Leiss, Ernst The complexity of restricted regular expressions and the synthesis problem for finite automata. **82j:68032**
Lobanov, L. P. (*with* Èidel'man, S. D.; Ezrohi, O. Ì.) Numerical method of determining probability characteristics of the behavior of multioutput stochastic automata. (Russian. English summary) **82c:68032**
Martin, Louise (*with* Reischer, Corina) Sur une application du principe pour minimiser l'interdépendance dans les automates probabilistes. **82a:68101**
Murmazina, T. A. *See* **Gabbasov, N. Z., 82e:68055**
Oyamaguchi, Michio (*with* Inagaki, Yasuyoshi; Honda, Namio) A real-time strictness test for deterministic pushdown automata. **82a:68107**
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Salimov, F. I. An approach to a synthesis of probability converters. (Russian) **82e:68057**
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Yanase, Tatsuro (*with* Inagaki, Yasuyoshi; Fukumura, Teruo) A recurrence formula for the configuration transition relation of a nondeterministic cellular automaton and its application to the Garden of Eden problem. **82h:68044**

secondary classifications:

Baba, N. (*with* Soeda, Takashi; Shoman, T.; Sawaragi, Yoshikazu) An application of the stochastic automaton to the investment game. **(82c:90096)**
Herkenrath, Ulrich (*with* Theodorescu, Radu) Expediency and optimality for general control systems. (French summary) **(82j:92063)**
Hoare, C. A. R. *See* **Kennaway, J. R., (82a:68050)**
Kennaway, J. R. (*with* Hoare, C. A. R.) A theory of nondeterminism. **(82a:68050)**
Nawrotzki, Kurt ★Diskrete offene Systeme. (German) [Discrete open systems] **(82f:60151)**
Nazarov, A. A. Adaptation of servicing intensity to unknown parameter of incoming stream by an automaton with purposeful behavior. **(82h:68056)**
Picci, Giorgio On the internal structure of finite-state stochastic processes. **(82d:60116)**
Sawaragi, Yoshikazu *See* **Baba, N.; et al., (82c:90096)**
Shoman, T. *See* **Baba, N.; et al., (82c:90096)**
Soeda, Takashi *See* **Baba, N.; et al., (82c:90096)**
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Witten, Ian H. Probabilistic behaviour/structure transformations using transitive Moore models. **(82d:93069)**

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secondary classifications:

Baba, N. (*with* Soeda, Takashi; Shoman, T.; Sawaragi, Yoshikazu) An application of the stochastic automaton to the investment game. **(82c:90096)**
Peterson, Gary L. (*with* Reif, John H.) Multiple-person alternation. **(82h:90099)**
Reif, John H. *See* **Peterson, Gary L., (82h:90099)**
Sawaragi, Yoshikazu *See* **Baba, N.; et al., (82c:90096)**
Shoman, T. *See* **Baba, N.; et al., (82c:90096)**
Soeda, Takashi *See* **Baba, N.; et al., (82c:90096)**

68D30 Algebraic theory of automata [See also 18B20, 20M35.]

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Buevič, V. A. On τ-completeness in the class of automaton mappings. (Russian) **82i:68038**
Davio, Marc Kronecker products and shuffle algebra. **82a:68102**
Felea, V. *VT*-automata and meta-algebraic families. **82a:68103**
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Gécseg, Ferenc (*with* Imreh, Balázs) A note on: "Some structural properties of the periodic sum of finite automata" [Found. Control Engrg. 3 (1978), no. 2, 63–69; MR 80b:68079] by Zdzisław B. Mądowicz. **82i:68039**
Goles, E. (*with* Olivos, J.) Periodic behaviour of generalized threshold functions. **82e:68033**
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Lisovik, L. P. Equivalence problem for finitely ambiguous finite automata over semigroups. **82b:68045**
Manes, Ernest G. *See* **Arbib, Michael A., 82i:68037**
Mądowicz, Zdzisław B. Strong connectivity of periodic sums of finite automata. (Russian) **82a:68104**
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Muir, A. (*with* Warner, M. W.) The decomposition of tolerance automata. **82a:68105**
Naudé, G. (*with* Nolte, C.) Linear systems: introductory remarks and a duality theory for systems over rings. (*See* **82i:16002**)
Nolte, C. *See* **Naudé, G.,** (*See* **82i:16002**)
Olivos, J. *See* **Goles, E., 82e:68033**
Peeva, K. *See* **Topenčarov, Vladimir V., 82a:68106**
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secondary classifications:

Adámek, Jiří (*with* Koubek, Václav) Least fixed point of a functor. **(82d:18004)**
Chaput, Daniel (*with* Sabidussi, Gert) Une généralization du théorème de Ginsburg-Rose. **(82a:20078)**
Ehrig, Hartmut Algebraic theory of parameterized specifications with requirements. **(82h:68020)**
Gécseg, Ferenc (*with* Steinby, Magnus) The algebraic theory of the tree automata. II. (Hungarian) **(82a:68157)**
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Ito, Masami A class of automata which forms a lattice and its subclasses. **(82g:06011)**
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Steinby, Magnus *See* **Gécseg, Ferenc, (82a:68157)**
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Zolotova, N. V. Recursive schemes. (Russian) (*See* **81c:00007**)

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Lange, È. È. Minimization of the number of states of an asynchronous finite automaton with allowance for implementation by programmable logic array. **82h:68080**
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68D37 Decomposition theory

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Haitov, T. I. *See* **Usmanov, Z. D., 82e:68059**
Jancen, N. Ja. *See* **Baranov, S. I., 82d:68040**
Koubek, Václav *See* **Münzová-Demlová, Marie; et al., 82d:68041**
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Rezničenko, V. A. The connection between functional dependencies and hierarchical decompositions of the first order. (Russian) (*See* **82g:68003**)
Šestakov, E. A. One method of solving the problem of decomposition of discrete automata. **82i:68040**
Usmanov, Z. D. (*with* Haitov, T. I.) Determination of a subset of initial data generating the critical state of a collection with a model variant of renewal. (Russian. Tajiki summary) **82e:68059**

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Kutschke, Karl-Heinz Zur Komposition und Dekomposition einer Klasse von Programmoduln. (Russian and English summaries) **(82a:68013)**
Muir, A. (*with* Warner, M. W.) The decomposition of tolerance automata. **(82a:68105)**
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68D40 Reduction problems

Berthelot, G. (*with* Roucairol, Gérard P.; Valk, Rüdiger) Reductions of nets and parallel programs. **82a:68109**
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Valk, Rüdiger *See* **Berthelot, G.; et al., 82a:68109**

secondary classifications:

Sigalov, V. S. The problem of factorization of formulas of an algebra of finite predicates. (Russian) (*See* **82g:68007**)

68D45 Realizable functions and regular events

Alekseenko, V. I. *See* **Amerbaev, V. M., 82e:68060**
Amerbaev, V. M. (*with* Alekseenko, V. I.) A class of functional transformations in modular arithmetic. (Russian) **82e:68060**
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Thomas, Wolfgang Remark on the star-height-problem. **82b:68046**

secondary classifications:

Fürer, Martin The complexity of the inequivalence problem for regular expressions with intersection. **(82g:68042)**
Škil', A. S. Construction of a complete universal test for digital devices. (Russian) (*See* **82g:68007**)

68D50 Experiments, state-assignments

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Nie, Yi Yi Pansystem logic conservations of Δ fuzzy sets. (Chinese. English summary) **82c:68034**
Streppel, Dieter ★Entwurf von Schaltnetzen und asynchronen Schaltwerken mit Hilfe der Partitionentheorie. (German) [Design of switching networks and asynchronous circuits using partition theory] **82a:68111**

secondary classifications:

Danilov, V. V. (*with* Žirabok, A. N.; Filippov, F. V.) An identifying experiment with an automaton in the presence of an increasing number of states. **(82d:94070)**
Filippov, F. V. *See* **Danilov, V. V.; et al., (82d:94070)**
Novikov, S. V. Method of implementing a system of partial Boolean functions by means of an arrangement of programmable logic arrays. **(82i:68044)**
Nurmeev, K. N. The complexity and running time of programs on a finite information set. (Russian) **(82e:68043)**
Žirabok, A. N. *See* **Danilov, V. V.; et al., (82d:94070)**

68D90 Transition nets

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Best, E. The relative strength of *K*-density. **82k:68029**
Diaz, M. *See* **André, C.; et al., 82b:68047**
Genrich, H. J. (*with* Thiagarajan, P. S.) Bipolar synchronization systems. **82g:68055**
(*with* Lautenbach, K.; Thiagarajan, P. S.) Elements of general net theory. **82a:68112**
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Grabowski, Jan The decidability of persistence for vector addition systems. **82c:68035**
Griese, W. Liveness in NSC-Petri nets. (German summary) **82j:68038**
Jensen, Kurt A method to compare the descriptive power of different types of Petri nets. **82b:68048**
Kreowski, Hans-Jörg A comparison between Petri nets and graph grammars. **82h:68081**
Laucht, C. M. Cube notation for vector replacement systems. **82a:68113**
Lautenbach, K. *See* **Genrich, H. J.; et al., 82a:68112**
Mayr, Ernst W. Persistence of vector replacement systems is decidable. **82f:68060**
(*with* Meyer, Albert R.) The complexity of the finite containment problem for Petri nets. **82f:68061**
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Nielsen, Mogens (*with* Plotkin, Gordon D.; Winskel, Glynn) Petri nets, event structures and domains. I. **82b:68049**
Petri, C. A. Introduction to general net theory. **82b:68050**
Concurrency. **82e:68061**
Plotkin, Gordon D. *See* **Nielsen, Mogens; et al., 82b:68049**
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Reisig, Wolfgang Zur Verwendung von Petrinetz-Morphismen bei der System Konstruktion. **82j:68039**
On solving conflicts in Petri nets. (German summary) **82j:68040**
A graph grammar representation of nonsequential processes. **82h:68082**
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Silva, M. Simplification des réseaux de Petri par élimination de places implicites. (English and German summaries) [Simplification of Petri nets by elimination of implicit places] **82m:68108**
Starke, Peter H. On the languages of bounded Petri nets. **82c:68036**
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secondary classifications:

Anišev, P. A. A method of correctness analysis of algorithm flowcharts. **(82m:68017)**
Araki, Toshiro (*with* Kagimasa, Toyohiko; Tokura, Nobuki) Relations of flow languages to Petri net languages. **(82i:68046)**
Berthelot, G. (*with* Roucairol, Gérard P.; Valk, Rüdiger) Reductions of nets and parallel programs. **(82a:68109)**
Best, E. Atomicity of activities. **(82e:68012)**
Börger, Egon The reachability problem for Petri nets and decision problems for Skolem arithmetic. **(82b:03079)**
Cotronis, J. Y. *See* **Lauer, P. E.; et al., (82h:68034)**
Genrich, H. J. (*with* Lautenbach, K.) System modelling with high-level Petri nets. **(82b:68008)**
Gischer, Jay Shuffle languages, Petri nets, and context-sensitive grammars. **(82h:68102)**
Kagimasa, Toyohiko *See* **Araki, Toshiro; et al., (82i:68046)**
Lauer, P. E. (*with* Shields, M. W.; Cotronis, J. Y.) Formal behavioural specification of concurrent systems without globality assumptions. **(82h:68034)**
Lautenbach, K. *See* **Genrich, H. J., (82b:68008)**
Peterson, James Lyle ★Petri net theory and the modeling of systems. **(82j:68017)**
Priese, Lutz On the concept of simulation in asynchronous, concurrent systems. **(82k:68058)**
Roucairol, Gérard P. *See* **Berthelot, G.; et al., (82a:68109)**
Shapiro, R. M. The application of general net theory—a personal history. **(82b:94049)**
Shields, M. W. *See* **Lauer, P. E.; et al., (82h:68034)**
Suraj, Zbigniew A resource allocation problem. **(82a:68047)**
Tokura, Nobuki *See* **Araki, Toshiro; et al., (82i:68046)**
Valk, Rüdiger *See* **Berthelot, G.; et al., (82a:68109)**

68D99 None of the above, but in this section

Chvalina, Jan On certain topological state spaces of *X*-automata. **82m:68110**
Kim, Song Ho Mathematical representation for program flowchart and its characteristics. (Korean. English summary) **82g:68056**
Kudrjavcev, V. B. On completeness for functional systems. (Russian) **82i:68041**
Ţoca, Aurelia Ω-automata. **82c:68037**

secondary classifications:

Mo, Shao Kui (*with* Ye, Da Xing) On recursion schemas defining operators. (Chinese. English summary) **(82i:03054)**
Pedrycz, Witold An approach to the analysis of fuzzy systems. **(82i:93003)**
Reutenauer, Christophe Une bibliographie sur les séries formelles en variables non commutatives. **(82g:00003)**
Sendov, Blagovest Information science and other sciences. (Bulgarian) **(82f:00019)**
Ye, Da Xing *See* **Mo, Shao Kui, (82i:03054)**

68Exx Discrete mathematics

68E05 Sorting, searching

Aigner, Martin Producing posets. **82j:68041**
Airapetjan, L. R. An algorithm for inhomogeneous sorting by the sampling method. (Russian) **82b:68051**
Altenkamp, Doris (*with* Mehlhorn, Kurt) Codes: unequal probabilities, unequal letter costs. **82a:68114**
Alton, Donald A. (*with* Eckstein, Denise M.) Parallel breadth-first search of p-sparse graphs. **82e:68062**
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Bollobás, Béla (*with* Rosenfeld, Moshe) Sorting in one round. **82j:68042**
Bongiovanni, G. (*with* Luccio, F.; Pagli, L.) The problem of quasisorting. **82c:68038**
Borodin, Allan B. (*with* Guibas, Leo J.; Lynch, Nancy A.; Yao, Andrew Chi Chih) Efficient searching using partial ordering. **82j:68043**
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(*with* Fischer, Michael J.; Kirkpatrick, David G.; Lynch, Nancy A.; Tompa, Martin) A time-space tradeoff for sorting on nonoblivious machines. **82i:68042**
Dudziński, Krzysztof (*with* Dydek, Andrzej) On a stable minimum storage merging algorithm. **82a:68115**
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Gotlieb, L. (*with* Wood, Derick) The construction of optimal multiway search trees and the monotonicity principle. **82m:68111**
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Güttler, Reiner (*with* Mehlhorn, Kurt; Schneider, Wolfgang) Binary search trees: average and worst case behavior. (German and Russian summaries) **82g:68057**
Häggkvist, Roland (*with* Hell, Pavol) Graphs and parallel comparison algorithms. **82j:68044**
(*with* Hell, Pavol) Parallel sorting with constant time for comparisons. **82j:68045**
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Kleitman, Daniel J. (*with* Saks, Michael E.) Set orderings requiring costliest alphabetic binary trees. **82j:68047**
Klincsek, G. T. Minimal triangulations of polygonal domains. **82a:68116**
Knuth, Donald E. ★Искусство программирования для ЭВМ. Том 3. (Russian) [The art of computer programming. Vol. 3] **82c:68039**
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van Leeuwen, Jan *See* **Overmars, Mark H., 82e:68063** *and* **82j:68050**
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Lynch, Nancy A. *See* **Borodin, Allan; et al., 82i:68042; 82j:68043** *and* (*See* **82a:68004**)
Maurer, Hermann A. (*with* Ottmann, Thomas) Dynamic solution of decomposable searching problems. **82j:68049**
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Wang, Pei Zhuang Introduction to fuzzy mathematics. II. (Chinese) **(82g:03092)**
Amsterdam ★Formal methods in the study of language. Part 1. **(82k:03031a)**
★Formal methods in the study of language. Part 2. **(82k:03031b)**
Colloquium:
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★Formal methods in the study of language. Part 2. **(82k:03031b)**
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★Formal methods in the study of language. Part 2. **(82k:03031b)**

68Gxx Artificial intelligence [See also 62H30, 68D27.]

Banerji, Ranan B. ★Artificial intelligence. **82a:68164**
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Ahutin, V. M. (*with* Gurfinkel', V. S.; Gusel'nikov, V. I.; Emel'janov, V. N.; Kogan, A. B.; Levenko, B. A.; Litineckiĭ, I. B.; Simkin, G. N.) Current problems in bionics. (Russian) **(82e:92001)**

(de Coulon, F.) *See* **Signal processing : theories and applications, (82g:94001)**
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(Kunt, Murat) *See* **Signal processing : theories and applications, (82g:94001)**
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Litineckiĭ, I. B. *See* **Ahutin, V. M.; et al., (82e:92001)**
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(Rybak, V. I.) *See* **Problems on the theory of robots and artificial intelligence, (82g:68091a)**
Simkin, G. N. *See* **Ahutin, V. M.; et al., (82e:92001)**
(Žukovin, V. E.) *See* **Theoretical cybernetics, (82f:90004)**
Artificial intelligence ★Вопросы теории роботов и искусственного интеллекта. (Russian) [Problems on the theory of robots and artificial intelligence] **(82g:68091a)**
Conference:
European, Signal Processing ★Signal processing: theories and applications. **(82g:94001)**
Cybernetics ★Теоретическая кибернетика. (Russian) [Theoretical cybernetics] **(82f:90004)**
Information science ★Семиотика и информатика. Вып. 15. (Russian) [Semiotics and information science. No. 15] **(82a:68007)**
Lausanne ★Signal processing: theories and applications. **(82g:94001)**
Problems on the theory of robots and artificial intelligence ★Вопросы теории роботов и искусственного интеллекта. (Russian) [Problems on the theory of robots and artificial intelligence] **(82g:68091a)**
Semiotics and information science ★Семиотика и информатика. Вып. 15. (Russian) [Semiotics and information science. No. 15] **(82a:68007)**
Signal processing : theories and applications ★Signal processing: theories and applications. **(82g:94001)**
Theoretical cybernetics ★Теоретическая кибернетика. (Russian) [Theoretical cybernetics] **(82f:90004)**

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Căruntu, M. Learning model attached to the adjustable random systems with complete connections. (French and Romanian summaries) **82a:68165**
Charniak, Eugene (*with* Riesbeck, Christopher K.; McDermott, Drew V.) ★Artificial intelligence programming. **82k:68049**
Deng, Ju Long A study of fuzzy decision-making systems. (Chinese. English summary) **82g:68082**
Dietterich, Thomas G. (*with* Michalski, Ryszard S.) Inductive learning of structural descriptions: evaluation criteria and comparative review of selected methods. **82i:68054**
Kobrinskiĭ, A. A. Algorithmic properties of manipulation systems. (Russian) **82h:68115**
Lee, R. C. T. Clustering analysis and its applications. (*See* **82k:68001**)
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Niemann, Heinrich Unsupervised learning. (*See* **82m:68008**)
O'Neill, Richard P. How query systems can simplify models and aid analysis. (*See* **82g:00016**)
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Takiyama, Ryuzo A two-level committee machine: a representation and a learning procedure for general piecewise linear discriminant functions. **82g:68083**
Zakrevskiĭ, A. D. Some combinatorial problems of artificial intelligence. (Russian) (*See* **82a:68007**)

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Anderson, James Alfred Brain modeling and memory. **(82c:00012)**
Dayton, Eric Inference and conditional knowledge. **(82k:03005)**
Hájek, Petr (*with* Havránek, Tomáš) ★Mechanizing hypothesis formation. **(82f:03017)**
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Kasatkina, I. V. ★Об одном методе семантического контроля правильности программы в автоматизированных обучающих системах. (Russian) [A method of semantic verification of program correctness in computerized instruction systems] **(82m:68024)**
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68G10 Pattern recognition, speech recognition

Aidarhanov, M. B. (*with* Muhamedgaliev, A. F.) Existence of correct algorithms in extensions of a model of pattern recognition algorithms. (Russian. Kazakh summary) **82h:68074**
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Minami, Akihiko (*with* Furukawa, Tomozo) Three-dimensional image reconstruction from the projections under limited view angle. **82m:68132**

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Moore, Marc Random sampling in pattern reconstruction. **82h:68120**

Morin, Richard L. (*with* Raeside, David E.) A reappraisal of distance-weighted k-nearest neighbor classification for pattern recognition with missing data. **82f:68094**

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Peng, Jia Xiong On the recognizability of pattern sets. (Chinese. English summary) **82a:68171**

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Petunin, Ju. I. (*with* Šul'dešov, G. A.) Pattern recognition with Fisher linear discriminant functions. **82a:68172**

Pik, Jiří A hierarchical pattern description in the syntactic approach to pattern recognition. **82k:68054**

Plummer, A. P. N. *See* **Davies, E. R., 82k:68050**

Pogosjan, È. M. Training as a variety of induction inference. **82j:68091**

Pudil, Pavel (*with* Bláha, Svatopluk) Evaluation of the effectiveness of features selected by discriminant analysis methods. **82k:68055**

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Rastrigin, L. A. (*with* Érenštein, R. H.) ★Метод коллективного распознавания. (Russian) [A method of collective pattern recognition] **82k:68056**

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Samet, Hanan Connected component labeling using quadtrees. **82g:68086**

Sellers, Peter H. The theory and computation of evolutionary distances: pattern recognition. **82a:68173**

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Shapiro, Stephen D. Generalization of the Hough transform for curve detection in noisy digital images. **82h:68080**

Simundich,Thomas M. (*with* Karplus, W. J.) Application of pattern recognition method to modeling of systems with distributed parameters. (Russian) **82a:68174**

Singhania, Ashok K. (*with* Berra, P. Bruce) Associative processor application to change detection. (*See* **82k:68003**)

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Soroka, Barry I. (*with* Andersson, Russell L.; Bajcsy, Ružena K.) Generalised cylinders from local aggregation of sections. **82h:68121**

Srihari, Sargur N. (*with* White, Lee J.; Snabb, Thomas) Identity conditions for nearest-neighbor and potential-function classifiers. **82j:68092**

Stark, Henry (*with* Woods, John W.; Paul, Indraneel; Hingorani, Rajesh) Direct Fourier reconstruction in computer tomography. **82e:68099**

Šul'dešov, G. A. *See* **Petunin, Ju. I., 82a:68172**

Šredov, A. M. (*with* Šmidt, A. A.; Jakubovič, V. A.) Invariant systems of features in pattern recognition. **82g:68087**

Swain, Philip H. Bayesian classification in a time-varying environment. **82a:68175**

Tanimoto, Steven L. Image data structures. (*See* **82m:68009**)

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Trummer, M. R. Reconstructing pictures from projections: on the convergence of the ART algorithm with relaxation. (German summary) **82f:68096**

Watanabe, Satosi Pattern recognition as a quest for minimum entropy. **82h:68122**

Weide, Bruce W. *See* **Bentley, Jon Louis; et al., 82g:68084**

White, Lee J. *See* **Srihari, Sargur N.; et al., 82j:68092**

Wilimowska, Zofia Combinatorial method of feature selection in pattern recognition based on risk increase. (Polish. Russian and English summaries) **82f:68097**

Windham, Michael P. *See* **Bezdek, James C.; et al., 82a:68166**

Winograd, Terry Extended inference modes in reasoning by computer systems. **82i:68056**

Wismath, S. K. (*with* Soong, H. P.; Akl, S. G.) Feature selection by interactive clustering. **82k:68057**

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Yu, Hong Zu (*with* Li, Chu Lin; Wu, Xue Mou) Binary comparison average method for fuzzy pattern recognition. (Chinese. English summary) **82a:68176**

(Zadeh, Lotfi A.) *See* **Bezdek, James C., 82j:68090**

Zdrahal, Z. (*with* Bratko, I.; Shapiro, A.) Recognition of complex patterns using cellular arrays. **82m:68133**

Zenkin, A. A. *See* **Žuravlev, Ju. I.; et al., 82c:68059**

Zenkin, A. I. *See* **Žuravlev, Ju. I.; et al., 82c:68059**

Žuravlev, Ju. I. (*with* Zenkin, A. A.; Zenkin, A. I.; Isaev, I. V.; Kol'cov, P. P.; Kočetkov, D. V.; Rjazanov, V. V.) Problems of pattern recognition and classification with standard construction. (Russian) **82c:68059**

Amsterdam ★Pattern recognition in practice. **82d:68053**

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Pattern Recognition ★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 1. **82g:68088a**

★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 2. **82g:68088b**

Miami Beach, Fla. ★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 1. **82g:68088a**

★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 2. **82g:68088b**

Pattern recognition ★Распознавание образов. (Russian) [Pattern recognition] **82h:68081a**

★Proceedings of the 5th International Conference on Pattern Recognition. Vol. 1. **82g:68088a**

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Agranovskiĭ, M. L. A problem of integral geometry in connection with image processing. (Russian) **(82g:53076)**

Aleksandrov, V. V. (*with* Gorskiĭ, N. D.) Structurization of hierarchical systems. (Russian) **(82h:92056)**

Apostolico, Alberto ★Some linear time algorithms for string statistics pr blems. **(82m:68062)**

Borello, Laura (*with* Ferraro, Mario; Penengo, Piero; Rossotti, Maria Lia) A model of visual perception. **(82b:92043)**

Bozzini, Mira (*with* Lenarduzzi, Licia) Multivariable approximation and recognition of forms. (Italian) **(82h:92003)**

Brady, Stephen D. (*with* Rosenthal, Richard E.) Interactive computer graphical solutions of constrained minimax location problems. **(82f:90030)**

Chang, Tao (*with* Herman, Gabor T.) A scientific study of filter selection for a fan-beam convolution reconstruction algorithm. **(82g:92012)**

Cheng, J. K. (*with* Huang, Thomas S.) A subgraph isomorphism algorithm using resolution. **(82h:68085)**

Cormack, Allan M. Early two-dimensional reconstruction and recent topics stemming from it. **(82g:01047)**

Ferraro, Mario *See* **Borello, Laura; et al., (82b:92043)**

Foryś, Maria On some application of F-grammars to pattern description. (Polish and Russian summaries) **(82i:68049)**

Fowler, Robert J. (*with* Paterson, Michael S.; Tanimoto, Steven L.) Optimal packing and covering in the plane are NP-complete. **(82e:05112)**

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Gardner, W. A. Design of nearest prototype signal classifiers. **(82e:94024)**

Gerbrands, Jan J. On the relationships between SVD, KLT and PCA. **(82k:94002)**

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Gray, Robert M. (*with* Kieffer, John C.; Linde, Y.) Locally optimal block quantizer design. **(82a:94054)**

Guibas, Leo J. (*with* Odlyzko, Andrew M.) String overlaps, pattern matching, and nontransitive games. **(82g:05007)**

Györfi, László The rate of convergence of k_n-NN regression estimates and classification rules. **(82e:94008)**

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Hanson, Allen R. (*with* Riseman, Edward M.) Processing cones: a computational structure for image analysis. (*See* **82m:68009**)

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Huang, Thomas S. Efficient coding of continuous-tone images. (*See* **82d:94024**)

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Peacocke, Richard (*with* Mylopoulos, John) A region-based formalism for picture processing. **(82m:68095)**
Penengo, Piero *See* **Borello, Laura; et al., (82b:92043)**
(Pieroni, Goffredo G.) *See* **Map data processing, (82m:68006a)**
Pinter, Charles The logic of inherent ambiguity. **(82b:03059)**
Preparata, Franco P. *See* **Lipski, Witold, Jr., (82c:68062)** *and* **(82k:68059)**
Raudys, Šarūnas Classification errors when selecting features. (Russian. Lithuanian and English summaries) **(82b:62074)**
Riseman, Edward M. *See* **Hanson, Allen R., (*See* 82m:68009)**
Rohler, David (*with* Krishnaprasad, P. S.) Radon inversion and Kalman reconstructions: a comparison. **(82e:92009)**
Rosenthal, Richard E. *See* **Brady, Stephen D., (82f:90030)**
Rossotti, Maria Lia *See* **Borello, Laura; et al., (82b:92043)**
Santana, O. (*with* Mèndez, J. A.; Moreno-Díaz, R.) Normalized moments for processing visual data. (Spanish. English summary) **(82m:92089)**
Saridis, George N. Application of pattern recognition methods to control systems. **(82m:93095)**
Soroko, L. M. Maximum-entropy principle and its application to the solution of inverse problems. **(82m:92015)**
Takiyama, Ryuzo A two-level committee machine: a representation and a learning procedure for general piecewise linear discriminant functions. **(82g:68083)**
Tanimoto, Steven L. *See* **Fowler, Robert J.; et al., (82e:05112)** *and* **Structured computer vision, (82m:68009)**
Tjagunov, L. I. Some properties of the structure of the set of kernels of a symmetric graph. (Russian) **(82h:05041)**
Yager, Ronald R. Some properties of fuzzy relationships. **(82j:03072)**
Automatic pattern recognition and perception by a computer ★Classification automatique et perception par ordinateur. (French) [Automatic pattern recognition and perception by computer] **(82f:68001)**
Garmisch-Partenkirchen ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
IRIA Seminar:
Automatic Pattern Recognition and Perception by Computer ★Classification automatique et perception par ordinateur. (French) [Automatic pattern recognition and perception by computer] **(82f:68001)**
Map data processing ★Map data processing. **(82m:68006a)**
Maratea ★Map data processing. **(82m:68006a)**
NATO Advanced Study Institute:
Map Data Processing ★Map data processing. **(82m:68006a)**
Pattern formation by dynamic systems and pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
Pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
★Pattern recognition. **(82m:68008)**
Rocquencourt ★Classification automatique et perception par ordinateur. (French) [Automatic pattern recognition and perception by computer] **(82f:68001)**
Structured computer vision ★Structured computer vision. **(82m:68009)**
Symposium:
Synergetics ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
Synergetics ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

68G15 Theorem proving [See also 03B35.]

Bledsoe, W. W. A maximal method for set variables in automatic theorem-proving. **82g:68089**
Lippe, Wolfram-Manfred (*with* Wagner, Franz) Ein Entwurf zur maschinellen Unterstützung von Korrektheitsbeweisen bei Simulationen. (*See* **82h:68003**)
Manna, Zohar (*with* Waldinger, Richard) A deductive approach to program synthesis. **82j:68094**
Oppen, Derek C. Reasoning about recursively defined data structures. **82a:68177**
Plaisted, David A. Theorem proving with abstraction. **82m:68134**
Sandford, David M. ★Using sophisticated models in resolution theorem proving. **82m:68135**
Stickel, Mark E. A unification algorithm for associative-commutative functions. **82h:68123**
Tomlin, J. A. Comments on: "Logical inference as an aid to analysis in large databases" by Jack Minker. (*See* **82g:00016**)
Wagner, Franz *See* **Lippe, Wolfram-Manfred, (*See* 82h:68003)**
Waldinger, Richard *See* **Manna, Zohar, 82j:68094**

secondary classifications:

Andrews, Peter B. Theorem proving via general matings. **(82m:03013)**
Aronson, Alan R. (*with* Jacobs, Barry E.; Minker, Jack) A note on fuzzy deduction. **(82g:03038)**
Bullers, William I. (*with* Nof, Shimon Y.; Whinston, Andrew B.) Artificial intelligence in manufacturing planning and control. **(82g:90055)**
Cox, P. T. (*with* Pietrzykowski, T.) A complete, nonredundant algorithm for reversed Skolemization. **(82c:03017)**
Duran, Joe W. Automatic program synthesis via synthesis of loop-free segments. (*See* **82f:68003**)
Erni, W. (*with* Lapsien, R.) On the time and tape complexity of weak unification. **(82f:68047)**
Hullot, Jean-Marie Canonical forms and unification. **(82m:68067)**
Jacobs, Barry E. *See* **Aronson, Alan R.; et al., (82g:03038)**
Lapsien, R. *See* **Erni, W., (82f:68047)**
Minker, Jack Logical inference as an aid to analysis in large databases. (*See* **82g:00016**)
See also **Aronson, Alan R.; et al., (82g:03038)**
Nof, Shimon Y. *See* **Bullers, William I.; et al., (82g:90055)**
Orłowska, Ewa Resolution systems and their applications. I. **(82i:03021a)**
Resolution systems and their applications. II. **(82i:03021b)**
Pietrzykowski, T. *See* **Cox, P. T., (82c:03017)**
Reiter, Raymond Equality and domain closure in first-order databases. **(82b:68017)**
Schreiber, Peter Zur optimalen Lösung von Konstruktionsaufgaben. **(82b:03108)**
Siekmann, Jörg (*with* Wrightson, Graham) Paramodulated connection graphs. **(82b:03036)**
Whinston, Andrew B. *See* **Bullers, William I.; et al., (82g:90055)**
Wrightson, Graham *See* **Siekmann, Jörg, (82b:03036)**
Yager, Ronald R. An approach to inference in approximate reasoning. **(82a:94135)**

68G20 Problem solving

Charniak, Eugene A common representation for problem-solving and language-comprehension information. **82i:68057**
Claus, Volker The (n,k)-bounded emptiness problem for probabilistic acceptors and related problems. **82j:68095**
Dechter, Rina *See* **Huyn, Nam; et al., 82g:68090**
Huyn, Nam (*with* Dechter, Rina; Pearl, Judea) Probabilistic analysis of the complexity of A^*. **82g:68090**
Jirků, Petr Logical and linguistic aspects of computer-based inference processes. **82h:68124**
(Kolevaja, V. A.) *See* **Game-theoretic methods for solving problems of artificial intelligence and their applications, 82d:68054**
Križanovskiĭ, V. V. A method for solving an inverse problem on the position of a manipulator. (Russian) **82g:68091b**
Kuznecov, E. N. Analyzing the structure of the coupling matrix with the aid of the associated monotonic system. **82h:68125**
Laurière, Jean-Louis Sur quelques méthodes générales en résolution de problèmes. **82h:68082**
Minker, Jack Logical inference as an aid to analysis in large databases. (*See* **82g:00016**)
Muresan, L. V. *See* **Pednault, E. P. D.; et al., 82h:68126**
Pearl, Judea *See* **Huyn, Nam; et al., 82g:68090**
Pednault, E. P. D. (*with* Zucker, S. W.; Muresan, L. V.) On the independence assumption underlying subjective Bayesian updating. **82h:68126**
Zucker, S. W. *See* **Pednault, E. P. D.; et al., 82h:68126**
Artificial intelligence ★Теоретико-игровые методы решения задач искусственного интеллекта и их приложение. (Russian) [Game-theoretic methods for solving problems of artificial intelligence and their applications] **82d:68054**
Game-theoretic methods for solving problems of artificial intelligence and their applications ★Теоретико-игровые методы решения задач искусственного интеллекта и их приложение. (Russian) [Game-theoretic methods for solving problems of artificial intelligence and their applications] **82d:68054**

secondary classifications:

Ball, G. A. Basic concepts of the general theory of problems. (Russian) **(82k:00023)**
Kalan, James E. Query systems for linear programming models. (*See* **82g:00016**)
Lusk, E. L. *See* **Winker, S. K.; et al., (82k:20103)**
Maslov, S. Ju. Theory of inference search and questions of the psychology of creation. (Russian) **(82e:03025)**
Nickles, Thomas What is a problem that we may solve it? **(82m:00019)**
Semenjuk, È. P. (*with* Stasišin, V. M.) Mathematization of scientific knowledge and computer science. Applied aspects. (Russian) **(82e:00042)**
Stasišin, V. M. *See* **Semenjuk, È. P., (82e:00042)**
Winker, S. K. (*with* Wos, L.; Lusk, E. L.) Semigroups, antiautomorphisms, and involutions: a computer solution to an open problem. I. **(82k:20103)**
Wos, L. *See* **Winker, S. K.; et al., (82k:20103)**

68G99 None of the above, but in this section

Bley, H. Automatic input of circuit diagrams using image processing. (*See* **82m:68008**)
Bunke, Horst Understanding of line drawings by computer. (*See* **82m:68008**)
Feigenbaum, Edward A. Expert systems: looking back and looking ahead. **82e:68100**

secondary classifications:

Badalamenti, Anthony F. Analytic psychology: source concepts for artificial intelligence. **(82i:92039)**
Banchoff, Thomas F. Computer animation and the geometry of surfaces in 3- and 4-space. **(82b:53002)**
Cygel'nyĭ, I. M. *See* **Kuznecova, V. L.; et al., (82e:92014)**
Estabrook, G. F. (*with* McMorris, F. R.) When is one estimate of evolutionary relationships a refinement of another? **(82g:92005)**
(Góralski, Andrzej) *See* **Problem, method, solution, (82e:00008)**
Kuz'menko, V. L. *See* **Kuznecova, V. L.; et al., (82e:92014)**
Kuznecova, V. L. (*with* Kuz'menko, V. L.; Cygel'nyĭ, I. M.) Problems and perspectives of the development of artificial neurons. (Russian) **(82e:92014)**
McMorris, F. R. *See* **Estabrook, G. F., (82g:92005)**
Medvedev, Ju. T. Transformations of information and calculi that describe them: a model for oriented information retrieval. (Russian) **(82f:68098)**
Nowakowska, Maria A model of memory with storage horizon control. **(82h:92045)**
Pogosjan, È. M. On estimating the complexity and approximate decoding of combinatorial descriptions. (Russian. Armenian summary) **(82c:68026)**
Polozov, R. V. *See* **Smetanič, Ja. S., (82m:92037)**

Popplestone, R. J. Relational programming. **(82h:68006)**
Ruiz Shulcloper, José Test construction for polyvalent matrices. (Spanish) **(82m:94073)**
Schmanovich, Werner An axiomatic theory of winning mathematical games and economic actions. **(82h:90148)**
Smetanič, Ja. S. (*with* Polozov, R. V.) On the algorithms for determining the primary structure of biopolymers. **(82m:92037)**
Wu, Xue Mou Fuzziness, reliability and pansystems analysis. III. (Chinese) **(82g:94033a)**
Fuzziness, reliability and pansystems analysis. IV. (Chinese) **(82g:94033b)**
Problem, method, solution ★Zadanie, metoda, rozwiązanie. (Polish) [Problem, method, solution] **(82e:00008)**

68H05 Information retrieval

Aleškina, S. M. (*with* Drijanskiĭ, V. M.) On the possibility of using the theory of fuzzy sets in information systems. (Russian) (*See* **82g:68003**)
(Andon, F. I.) *See* **Data bases and information retrieval systems, 82d:68057a**
Beniaminov, E. M. An algebraic approach to models of data bases of relational type. (Russian) **82h:68127a**
Algebraic structure of relational models of data bases. (Russian. English and German summaries) **82h:68127b**
Brown, Mark R. (*with* Tarjan, Robert Endre) Design and analysis of a data structure for representing sorted lists. **82e:68101**
Čenkeli, T. I. Formalization of descriptive information retrieval systems by means of many-sorted logic. (Russian) **82d:68055**
Chernoff, Herman The identification of an element of a large population in the presence of noise. **82h:68083**
Chung, K. M. (*with* Luccio, F.; Wong, C. K.) Minimum number of steps for permutation in a bubble memory. **82a:68178**
Drijanskiĭ, V. M. *See* **Aleškina, S. M., (*See* 82g:68003)**
Gupta, U. I. (*with* Lee, Der Tsai; Leung, Joseph Y.-T.; Pruitt, J. W.; Wong, C. K.) Record allocation for minimizing seek delay. **82m:68136**
Gusev, L. A. (*with* Petrov, S. V.; Smirnova, I. M.; Tenenbaum, L. A.) Collateral-hierarchical graphs and graph substitution operations. **82h:68128**
ten Hoopen, J. Consecutive retrieval with redundancy: an optimal linear and an optimal cyclic arrangement and their storage space requirements. **82g:68092**
Jaeschke, G. Towards single probe retrieval. (*See* **82h:68003**)
Kaji, Hiroyuki (*with* Nitta, Yoshihiko) A fuzzy model of a document retrieval system and its implementation. **82d:68056**
Kambayashi, Yahiko (*with* Yajima, Shuzo; Nakatsu, Narao) Hierarchical pattern matching algorithms for strings. **82h:68129**
Kamenskiĭ, A. G. On the use of a thesaurus in information retrieval. (Russian. English and German summaries) **82h:68084**
Kimura, Masayuki *See* **Nisijo, Keizi; et al., 82m:68137**
Lee, Der Tsai *See* **Gupta, U. I.; et al., 82m:68136**
Leiss, Ernst Data security and binomial coeffficients. **82c:68060**
Leung, Joseph Y.-T. *See* **Gupta, U. I.; et al., 82m:68136**
Ljubčenko, G. G. *See* **Revenko, E. Z., 82h:68131**
Luccio, F. *See* **Chung, K. M.; et al., 82a:68178**
Maruoka, Akira *See* **Nisijo, Keizi; et al., 82m:68137**
Medvedev, Ju. T. Transformations of information and calculi that describe them: a model for oriented information retrieval. (Russian) **82f:68098**
Nakamura, Akira *See* **Ono, Hiroakira, 82e:68102**
Nakatsu, Narao *See* **Kambayashi, Yahiko; et al., 82h:68129**
Nisijo, Keizi (*with* Maruoka, Akira; Kimura, Masayuki) An optimum decomposition of files. **82m:68137**
Nitta, Yoshihiko *See* **Kaji, Hiroyuki, 82d:68056**
Ono, Hiroakira (*with* Nakamura, Akira) Decidability results on a query language for data bases with incomplete information. **82e:68102**
Ottmann, Thomas (*with* Six, H. W.; Wood, Derick) The analysis of search trees: a survey. **82h:68130**
Petrov, S. V. *See* **Gusev, L. A.; et al., 82h:68128**
Poljačenko, B. E. An effective algorithm for obtaining the optimal partitioning of a graph with addition of vertices. (Russian) **82d:68057b**
Pruitt, J. W. *See* **Gupta, U. I.; et al., 82m:68136**
Putkonen, Anne The order of merging operations for queries in inverted file systems. **82h:68085**
Revenko, E. Z. (*with* Ljubčenko, G. G.) Principle of the address retrieval system of a data base. (Russian. English summary) **82h:68131**
Six, H. W. *See* **Ottmann, Thomas; et al., 82h:68130**
Smirnova, I. M. *See* **Gusev, L. A.; et al., 82h:68128**
(Stognii, A. O.) *See* **Data bases and information retrieval systems, 82d:68057a**
Tarjan, Robert Endre *See* **Brown, Mark R., 82e:68101**
Tenenbaum, L. A. *See* **Gusev, L. A.; et al., 82h:68128**
Thiele, Helmut On equivalent transformations of binary search trees. **82g:68093**
Trutovskiĭ, V. B. On the question of the mathematical description of systems. (Russian) **82a:68179**
Wong, C. K. *See* **Chung, K. M.; et al., 82a:68178** *and* **Gupta, U. I.; et al., 82m:68136**
Wood, Derick *See* **Ottmann, Thomas; et al., 82h:68130**
Yajima, Shuzo *See* **Kambayashi, Yahiko; et al., 82h:68129**
Yao, Andrew Chi Chih A note on the analysis of extendible hashing. **82a:68180**
Should tables be sorted? **82f:68099**
Data bases and information retrieval systems ★Банки данных и информационно-поисковые системы. (Russian) [Data bases and information retrieval systems] **82d:68057a**
Information retrieval systems ★Банки данных и информационно-поисковые системы. (Russian) [Data bases and information retrieval systems] **82d:68057a**

secondary classifications:

(Apers, P. M. G.) *See* **Colloquium: Database Organization, (82m:68005a)** *and* **(82m:68005b)**
Culadze, M. G. (*with* Hintibidze, M. G.) Organization of input, arrangement and search of textual data computers. I. (Russian) **(82m:68037)**
Demetrovics, János Logical and structural study of a relational data model. (Hungarian) **(82f:68021)**
Gonnet, Gaston H. Expected length of the longest probe sequence in hash code searching. **(82d:68042)**
Gorškov, P. V. ★Эквивалентные преобразования в алгебрах структур данных. (Russian) [Equivalent transformations in algebras of data structures] **(82e:68021)**
Hintibidze, M. G. *See* **Culadze, M. G., (82m:68037)**
Ito, Tetsuro (*with* Toyoda, Junichi; Kizawa, Makoto) Hierarchical data base organization for document information retrieval. **(82d:68013)**
Kizawa, Makoto *See* **Ito, Tetsuro; et al., (82d:68013)**
Larson, Per-Åke Analysis of index-sequential files with overflow chaining. **(82m:68044)**
Lien, Y. Edmund Hierarchical schemata for relational databases. **(82b:68015)**
Litwin, W. Linear hashing: a new tool for file and table addressing. (*See* **82m:68005b**)
Trie hashing. (*See* **82m:68005b**)
Melkanoff, Michel A. *See* **Zaniolo, Carlo, (82b:68019)**
Mendelson, Haim (*with* Yechiali, Uri) Optimal policies for data base reorganization. **(82m:68047)**
Mittermeir, R. Komplexitätserfordernisse von Modellen zur optimalen Indexselektion für Datenbanken. (English summary) **(82f:68026)**
Ng, Peter A. (*with* Tsai, Lun) The design and implementation of a scheme for large ordered indices. **(82b:68016)**
Nievergelt, Jurg Trees as data and file structures. **(82j:68014)**
Noltemeier, Hartmut On a generalization of heaps. **(82h:68083)**
(Stognii, A. O.) *See* **Data banks and information retrieval systems, (82g:68003)**
Toyoda, Junichi *See* **Ito, Tetsuro; et al., (82d:68013)**
Tsai, Lun *See* **Ng, Peter A., (82b:68016)**
Yechiali, Uri *See* **Mendelson, Haim, (82m:68047)**
Zaniolo, Carlo (*with* Melkanoff, Michel A.) On the design of relational database schemata. **(82b:68019)**
Colloquium:
Database Organization ★Colloquium Databankorganisatie. Deel 1. (Dutch) [Colloquium on Database Organization. Part 1] **(82m:68005a)**
★Colloquium Databankorganisatie. Deel 2. (Dutch) [Colloquium on Database Organization. Part 2] **(82m:68005b)**
Data banks and information retrieval systems ★Банки данных и информационно-поисковые системы. (Russian) [Data bases and information retrieval systems] **(82g:68003)**
Database organization ★Colloquium Databankorganisatie. Deel 1. (Dutch) [Colloquium on Database Organization. Part 1] **(82m:68005a)**
Symposium:
Theoretical Studies on Memory Storage and Use of Information ★Theoretical studies on memory storage and use of information. (Japanese) **(82g:68008)**
Theoretical studies on memory storage and use of information ★Theoretical studies on memory storage and use of information. (Japanese) **(82g:68008)**

68Jxx Simulation [See also 65Cxx.]

68J05 Simulation (analog, hybrid, etc.)

Bittrich, Hans-Joachim *See* **Viehweger, Uwe; et al., 82h:68133**
Chandy, K. Mani (*with* Misra, Jayadev) Asynchronous distributed simulation via a sequence of parallel computations. **82d:68058**
Clark, Gordon M. Use of Pólya distributions in approximate solutions to nonstationary $M/M/s$ queues. **82e:68103**
Crookes, J. G. Simulation in 1981. **82m:68138**
Heidelberger, Philip (*with* Welch, Peter D.) A spectral method for confidence interval generation and run length control in simulations. **82d:68059**
Hippe, Lutz *See* **Viehweger, Uwe; et al., 82h:68133**
Iglehart, Donald L. (*with* Shedler, Gerald S.) ★Regenerative simulation of response times in networks of queues. **82a:68181**
(Il'ina, N. P.) *See* **Smith, Jon M., 82f:68100**
Jakimov, N. D. *See* **Viničenko, A. A., 82a:68182**
Karačun, L. F. *See* **Romankevič, A. M., 82h:68132**
Kelton, W. David *See* **Law, Averill M., 82i:68058**
Law, Averill M. (*with* Kelton, W. David) ★Simulation modeling and analysis. **82i:68058**
Misra, Jayadev *See* **Chandy, K. Mani, 82d:68058**
Priese, Lutz On the concept of simulation in asynchronous, concurrent systems. **82k:68058**
Romankevič, A. M. (*with* Karačun, L. F.) On the calculation of the characteristics of a source of test sequences in a probabilistic system of technical diagnostics. (Russian. English summary) **82h:68132**
Schruben, Lee W. Control of initialization bias in multivariate simulation response. **82d:68060**
Shedler, Gerald S. *See* **Iglehart, Donald L., 82a:68181**
Smith, Jon M. ★Математическое и цифровое моделирование для инженеров и исследователей. (Russian) [Mathematical modeling and digital simulation for engineers and scientists] **82f:68100**
Tessmann, Hans-Jürgen *See* **Viehweger, Uwe; et al., 82h:68133**
Viehweger, Uwe (*with* Hippe, Lutz; Tessmann, Hans-Jürgen; Bittrich, Hans-Joachim) Zur Modellierung oszillierender Reaktionssysteme am Analogrechner. **82h:68133**
Viničenko, A. A. (*with* Jakimov, N. D.) An analogue method for solution of a Hilbert boundary value problem. (Russian) **82a:68182**
Welch, Peter D. *See* **Heidelberger, Philip, 82d:68059**

secondary classifications:

Arons, H. de Swaan *See* **Brok, S. W.; et al., (*See* 82h:68003)**
Atlan, H. (*with* Fogelman-Soulie, F.; Salomon, J.; Weisbuch, G.) Random Boolean networks. **(82m:94053)**

Badalamenti, Anthony F. Analytic psychology: source concepts for artificial intelligence. **(82i:92039)**
Balasubramanian, R. *See* **El-Zorkany, H. I., (82m:65090)**
Bergholz, Gerhard ★Verhaltensmodelle von Prozeßrechnern. (German) [Behavior models of process control computers] **(82a:68002)**
Brok, S. W. (*with* Dekker, L.; Arons, H. de Swaan) Parallel random number generators for the use in parallel processors. (*See* **82k:68003)**
(Bush, A. W.) *See* **Modelling and simulation in practice, (82c:65001)**
(Cross, Mark) *See* **Modelling and simulation in practice, (82c:65001)**
Deák, István An economical method for random number generation and a normal generator. (German summary) **(82m:65006)**
Dekker, L. *See* **Brok, S. W.; et al.,** (*See* **82k:68003)**
Devroye, Luc The computer generation of Poisson random variables. (German summary) **(82g:60003)**
El-Zorkany, H. I. (*with* Balasubramanian, R.) Hybrid computer solution of pde's using Laplace-modified Galerkin approximation. **(82m:65090)**
Fogelman-Soulie, F. *See* **Atlan, H.; et al., (82m:94053)**
(Gibson, R. D.) *See* **Modelling and simulation in practice, (82c:65001)**
Greenberg, Harvey J. The scope of computer-assisted analysis and model simplification. (*See* **82g:00016)**
Hangos, Katalin Simulation studies. (Hungarian) **(82e:93138)**
Hitzl, Donald L. (*with* Maltz, Frederick H.) Adaptive estimation procedures for multiparameter Monte Carlo computations. **(82f:65006)**
Hubert, Carl Dynamics of the generalized dual-spin turn. **(82i:70005)**
Klett, Eberhard Über die mathematische Abbildung von Kausalzusammenhängen. **(82a:93008)**
Kronmal, Richard A. (*with* Peterson, Arthur V., Jr.) A variant of the acceptance-rejection method for computer generation of random variables. **(82h:62037)**
Lawson, P. A. Contraction mapping techniques applied to the hybrid computer solution of parabolic pde's. **(82i:65062)**
Maltz, Frederick H. *See* **Hitzl, Donald L., (82f:65006)**
(O'Carroll, M. J.) *See* **Modelling and simulation in practice, (82c:65001)**
Peterson, Arthur V., Jr. *See* **Kronmal, Richard A., (82h:62037)**
Rzehak, H. Parallel computers for continuous systems simulation. (*See* **82k:68003)**
Salomon, J. *See* **Atlan, H.; et al., (82m:94053)**
Weisbuch, G. *See* **Atlan, H.; et al., (82m:94053)**
(Wilkinson, T. S.) *See* **Modelling and simulation in practice, (82c:65001)**
Conference:
Polymodel ★Modelling and simulation in practice. 2. **(82c:65001)**
Middlesbrough ★Modelling and simulation in practice. 2. **(82c:65001)**
Modelling and simulation in practice ★Modelling and simulation in practice. 2. **(82c:65001)**

68J10 Modeling

Aho, A. V. (*with* Ullman, Jeffrey D.; Yannakakis, Mihalis) Modeling communications protocols by automata. (*See* **82a:68004)**
Arató, Mátyás Probabilistic models in computer systems. (Russian) **82f:68101**
Balaziński, W. (*with* Macha, E.) A real-time method of determination of probable direction of fatigue crack propagation in materials. (*See* **82k:68003)**
Balci, Osman (*with* Sargent, Robert G.) A methodology for cost-risk analysis in the statistical validation of simulation models. **82d:68061**
Bonczek, Robert H. (*with* Holsapple, Clyde W.; Whinston, Andrew B.) A generalized decision support system using predicate calculus and network data base management. **82m:68139**
Conant, Roger C. Set-theoretic structure modelling. **82f:68102**
Genrich, H. J. (*with* Lautenbach, K.; Thiagarajan, P. S.) Substitution systems—a family of system models based on concurrency. **82b:68086**
Greenberg, Harvey J. (*with* Lundgren, J. Richard; Maybee, John S.) Graph-theoretic foundations of computer-assisted analysis. (*See* **82g:00016)**
Holsapple, Clyde W. *See* **Bonczek, Robert H.; et al., 82m:68139**
Hwang, Kai (*with* Ni, Lionel M.) Performance evaluation and resource optimization of multiple SIMD computer organizations. (*See* **82b:68024)**
Lautenbach, K. *See* **Genrich, H. J.; et al., 82b:68086**
Lundgren, J. Richard *See* **Greenberg, Harvey J.; et al.,** (*See* **82g:00016)**
Macha, E. *See* **Balaziński, W.,** (*See* **82k:68003)**
Maybee, John S. *See* **Greenberg, Harvey J.; et al.,** (*See* **82g:00016)**
Nance, Richard E. The time and state relationships in simulation modeling. **82d:68062**
Ni, Lionel M. *See* **Hwang, Kai,** (*See* **82b:68024)**
Sargent, Robert G. *See* **Balci, Osman, 82d:68061**
Stolov, E. L. A class of generators of pseudo-Markov chains. (Russian) **82j:68096**
Thiagarajan, P. S. *See* **Genrich, H. J.; et al., 82b:68086**
Ullman, Jeffrey D. *See* **Aho, A. V.; et al.,** (*See* **82a:68004)**
Whinston, Andrew B. *See* **Bonczek, Robert H.; et al., 82m:68139**
Yannakakis, Mihalis *See* **Aho, A. V.; et al.,** (*See* **82a:68004)**

secondary classifications:

Balchen, Jens G. Modeling, prediction, and control of fish behavior. **(82e:92044)**
Barone, Piero (*with* Regoliosi, Giuseppe) ★Una procedura di calcolo per la scelta automatica e la valutazione in linea di un modello lineare, appartenente a una classe data, relativo al rumore additivo presente in dati generati da una strumentazione elettronica. (Italian) [A calculation procedure for automatic selection and on-line estimation of a linear model belonging to a given class, relative to the additive noise present in data generated by an electronic instrument] **(82m:94002)**
Bellman, Richard Mathematical modelling of phenomena. **(82g:00010)**
Bellmann, K. (*with* Steinmüller, K.) Systems analysis and modeling in ecology. **(82g:92045)**
de Caprariis, Pascal P. The mathematical structure of an aquatic ecosystem model. **(82k:92062)**
Carlsson, Christer Adaptive multigoal control: an approach to applied systems analysis. **(82k:93042)**
Cygel'nyĭ, I. M. *See* **Kuznecova, V. L.; et al., (82e:92014)**
Feldman, Jerome A. (*with* Nigam, Anil) A model and proof technique for message-based systems. **(82a:68020)**
Friedman, A. D. *See* **Simoncini, L., (82e:94074)**
Gluškov, V. M. (*with* Ivanov, Viktor Vladimirovič; Janenko, V. M.; Jacenko, Ju. P.; Kakičev, S. V.) ★О средствах моделирования развивающихся систем. (Russian) [Procedures for modeling developing systems] **(82f:00017)**
Greenberg, Harvey J. Implementation aspects of model management: a focus on computer-assisted analysis. (*See* **82g:00016)**
See also **Computer-assisted analysis and model simplification, (82g:00016)**
Heinen, James A. *See* **Reyer, Steven E., (82f:94004)**
Ivanov, Viktor Vladimirovič *See* **Gluškov, V. M.; et al., (82f:00017)**
Jacenko, Ju. P. *See* **Gluškov, V. M.; et al., (82f:00017)**
Janenko, V. M. *See* **Gluškov, V. M.; et al., (82f:00017)**
Kadane, Joseph B. (*with* Larkin, Jill H.; Mayer, Richard H.) A moving average model for sequenced reaction-time data. **(82k:92060)**
Kakičev, S. V. *See* **Gluškov, V. M.; et al., (82f:00017)**
Kalan, James E. Query systems for linear programming models. (*See* **82g:00016)**
Kelton, W. David *See* **Law, Averill M., (82i:68058)**
Kickert, Walter J. M. An example of linguistic modelling: the case of Mulder's theory of power. **(82g:92058)**
Kuz'menko, V. L. *See* **Kuznecova, V. L.; et al., (82e:92014)**
Kuznecova, V. L. (*with* Kuz'menko, V. L.; Cygel'nyĭ, I. M.) Problems and perspectives of the development of artificial neurons. (Russian) **(82e:92014)**
Larkin, Jill H. *See* **Kadane, Joseph B.; et al., (82k:92060)**
Law, Averill M. (*with* Kelton, W. David) ★Simulation modeling and analysis. **(82i:68058)**
Matrosova, G. A. *See* **Petrenko, A. I., (82k:94026)**
(Maybee, John S.) *See* **Computer-assisted analysis and model simplification, (82g:00016)**
Mayer, Richard H. *See* **Kadane, Joseph B.; et al., (82k:92060)**
Nigam, Anil *See* **Feldman, Jerome A., (82a:68020)**
O'Neill, Richard P. How query systems can simplify models and aid analysis. (*See* **82g:00016)**
Petrenko, A. I. (*with* Matrosova, G. A.) Forming mathematical models of electrical circuits by applying analytic transformations. **(82k:94026)**
Regoliosi, Giuseppe *See* **Barone, Piero, (82m:94002)**
Reyer, Steven E. (*with* Heinen, James A.) Quantization noise analysis of a general digital filter. **(82f:94004)**
Simoncini, L. (*with* Friedman, A. D.) Concurrent diagnosis in parallel systems. **(82e:94074)**
Sohranskaja, V. S. (*with* Tuškina, T. A.) An experiment in parallelization of computational processes modeled by bilogical graphs. (Russian) **(82k:68039)**
Steinmüller, K. *See* **Bellmann, K., (82g:92045)**
Tuškina, T. A. *See* **Sohranskaja, V. S., (82k:68039)**
Boulder, Colo. ★Computer-assisted analysis and model simplification. **(82g:00016)**
Computer-assisted analysis and model simplification ★Computer-assisted analysis and model simplification. **(82g:00016)**
Symposium:
Computer-Assisted Analysis and Model Simplification ★Computer-assisted analysis and model simplification. **(82g:00016)**

68J99 None of the above, but in this section

secondary classifications:

Abelson, Harold (*with* diSessa, Andrea A.) ★Turtle geometry. **(82j:00001)**
diSessa, Andrea A. *See* **Abelson, Harold, (82j:00001)**

68K05 Miscellaneous applications of computers

Bellon, C. (*with* Saucier, G.) Étude de la contamination par des erreurs externes dans un système distribué. (English summary) **82e:68104**
Drobyšev, Ju. P. (*with* Puhov, V. V.) Analysis of the influence of a system on objects as a problem of transformation of data tables. **82c:68061**
(Gerber, H. Joseph) *See* **Liming, Roy Aaron, 82g:68095**
Golumbovici, Dan (*with* Pop, Radu) Step-by-step linear interpolator with the computation of the discriminant and minimization of the interpolation error. (Romanian. English summary) **82g:68094**
Hellman, Martin E. *See* **Merkle, Ralph C., 82f:68103**
Liming, Roy Aaron ★Mathematics for computer graphics. **82g:68095**
Lipski, Witold, Jr. (*with* Preparata, Franco P.) Finding the contour of a union of iso-oriented rectangles. **82c:68062**
(*with* Preparata, Franco P.) Erratum: "Finding the contour of a union of iso-oriented rectangles" [J. Algorithms **1** (1980), no. 3, 235–246; MR 82c:68062]. **82k:68059**
Merkle, Ralph C. (*with* Hellman, Martin E.) On the security of multiple encryption. **82f:68103**
Pop, Radu *See* **Golumbovici, Dan, 82g:68094**
Preparata, Franco P. *See* **Lipski, Witold, Jr., 82c:68062** *and* **82k:68059**
Puhov, V. V. *See* **Drobyšev, Ju. P., 82c:68061**
Saucier, G. *See* **Bellon, C., 82e:68104**
(Singer, Josef) *See* **Liming, Roy Aaron, 82g:68095**
Tilove, Robert Bruce Set membership classification: a unified approach to geometric intersection problems. **82c:68063**
Hybrid computing ★Vorträge aus dem Problemseminar: Hybridrechentechnik. (German) [Lectures from the Problem Seminar: Hybrid Computing] **82c:68064**

Seminar:
Hybrid Computing ★Vorträge aus dem Problemseminar: Hybridrechentechnik. (German) [Lectures from the Problem Seminar: Hybrid Computing] **82c:68064**
Weißig ★Vorträge aus dem Problemseminar: Hybridrechentechnik. (German) [Lectures from the Problem Seminar: Hybrid Computing] **82c:68064**

secondary classifications:

Abraham, Ralph H. Dynasim: exploratory research in bifurcations using interactive computer graphics. **(82a:58042)**
Chang, Tao (*with* Herman, Gabor T.) A scientific study of filter selection for a fan-beam convolution reconstruction algorithm. **(82g:92012)**
Cormack, Allan M. Early two-dimensional reconstruction and recent topics stemming from it. **(82g:01047)**
Herman, Gabor T. *See* **Chang, Tao, (82g:92012)**
Ibrahim, Rosalind L. R. A computer system for axiomatic investigation. **(82j:68074)**
Levin, Margarita R. On Tymoczko's argument for mathematical empiricism. **(82e:00032)**
Lieberherr, Karl Uniform complexity and digital signatures. **(82m:68087)**
Parter, Seymour V. (*with* Steuerwalt, Michael) On k-line and $k \times k$ block iterative schemes for a problem arising in 3-D elliptic difference equations. **(82e:65032)**
Rumjancev, I. A. ★Локальные методы интерполяции. (Russian) [Local methods of interpolation] **(82f:41002)**
(Stepanenko, E. N.) *See* **Questions of the application of computers in the development and investigation of technical systems, (82g:68007)**
Steuerwalt, Michael *See* **Parter, Seymour V., (82e:65032)**
Tymoczko, Thomas Computers, proofs and mathematicians: a philosophical investigation of the four-color proof. **(82e:00031)**
Vignes, Jean L'impact de l'informatique dans les sciences, les techniques, la vie sociale. **(82g:00015)**
Questions of the application of computers in the development and investigation of technical systems ★Вопросы применения ЭВМ при разработке и исследовании технических систем. (Russian) [Questions of the application of computers in the development and investigation of technical systems] **(82g:68007)**

70–XX MECHANICS OF PARTICLES AND SYSTEMS {For relativistic mechanics, see 83A05 and 83C10; for statistical mechanics, see 82–XX.}

70–01 Elementary exposition, textbooks

Fetter, Alexander L. (*with* Walecka, John Dirk) ★Theoretical mechanics of particles and continua. **82d:70001**
Greenspan, Donald ★Computer-oriented mathematical physics. **82h:70001**
Ingarden, Roman Stanisław (*with* Jamiołkowski, Andrzej) ★Mechanika klasyczna. (Polish) [Classical mechanics] **82d:70002**
Jamiołkowski, Andrzej *See* **Ingarden, Roman Stanisław, 82d:70002**
Landa, P. S. ★Автоколебания в системах с конечным числом степеней свободы. (Russian) [Auto-oscillation in systems with a finite number of degrees of freedom] **82f:70001**
Walecka, John Dirk *See* **Fetter, Alexander L., 82d:70001**

secondary classifications:

Antoncev, S. N. (*with* Monahov, V. N.) ★Краевые задачи некоторых вырождающихся уравнений механики сплошной среды. Фильтрация несмешивающихся жидкостей. Часть III. (Russian) [Boundary value problems for certain degenerate equations of continuum mechanics. Filtration of immiscible fluids. Part III] **(82f:76033)**
Cole, Julian D. *See* **Kevorkian, Jerry, (82g:34082)**
Kevorkian, Jerry (*with* Cole, Julian D.) ★Perturbation methods in applied mathematics. **(82g:34082)**
Monahov, V. N. *See* **Antoncev, S. N., (82f:76033)**
Pritulenko, P. V. ★Построение плоских фигур и сечений по специальным заданиям. (Russian) [Construction of plane figures and sections given specific conditions] **(82f:51018a)**
★Plane figures and sections: how to construct them given specific conditions. **(82f:51018b)**
(Rubanovskiĭ, V. N.) *See* **Wittenburg, Jens, (82c:70003)**
(Sergeev, V. S.) *See* **Wittenburg, Jens, (82c:70003)**
(Šokurov, Vladimir) *See* **Pritulenko, P. V., (82f:51018b)**
(Stepanov, S. Ja.) *See* **Wittenburg, Jens, (82c:70003)**
Wittenburg, Jens ★Динамика систем твердых тел. (Russian) [Dynamics of systems of rigid bodies] **(82c:70003)**

70–02 Advanced exposition (research surveys, monographs, etc.)

Arnol'd, V. I. ★Metody matematyczne mechaniki klasycznej. (Polish) [Mathematical methods of classical mechanics] **82e:70001**
Kozlov, V. V. ★Методы качественного анализа в динамике твердого тела. (Russian) [Methods of qualitative analysis in the dynamics of a rigid body] **82e:70002**
(Kucharczyk, Piotr) *See* **Arnol'd, V. I., 82e:70001**

secondary classifications:

Alekseev, Vladimir Mihailovič (*with* Jakobson, M. V.) Symbolic dynamics and hyperbolic dynamic systems. **(82j:58093)**
Blakemore, Carroll F. Modern mathematical techniques in theoretical physics. **(82c:00013)**
Brumberg, V. A. ★Аналитические алгоритмы небесной механики. (Russian) [Analytic algorithms in celestial mechanics] **(82g:70024)**
(Carter, S. R.) *See* **Poston, Tim; et al., (82i:58019)**
(Černavskiĭ, A. V.) *See* **Poston, Tim; et al., (82i:58019)**
Jakobson, M. V. *See* **Alekseev, Vladimir Mihailovič, (82j:58093)**
(Kisin, V. I.) *See* **Staržinskiĭ, V. M., (82f:34042)**
Müller, Peter C. (*with* Schiehlen, Werner O.) ★Forced linear vibrations. **(82e:70026)**
(Olsen, D. R.) *See* **Poston, Tim; et al., (82i:58019)**
Poston, Tim (*with* Stewart, Ian) ★Теория катастроф и ее приложения. (Russian) [Catastrophe theory and its applications] **(82i:58019)**
(Rockwood, A.) *See* **Poston, Tim; et al., (82i:58019)**
Sattinger, D. H. ★Les symétries des équations et leurs applications dans la mécanique et la physique. (French) [The symmetries of equations and their applications in mechanics and physics] **(82i:58001)**
Schiehlen, Werner O. *See* **Müller, Peter C., (82c:70026)**
Skowroński, Janisław M. ★Liapunov dynamics of lumped systems. **(82k:58061)**
Staržinskiĭ, V. M. ★Applied methods in the theory of nonlinear oscillations. **(82f:34042)**
Stewart, Ian *See* **Poston, Tim, (82i:58019)**

70–03 Historical (must also be assigned at least one classification number from Section 01)

Baimiševa, K. Š. On the history of the axiomatics of geometric statics. (Russian. English summary) **82a:70001**
Polak, L. S. (*with* Vizgin, V. P.) Noether's theorem in the history of physics. (Russian. English summary) **82c:70001**
Thüring, Bruno Operative oder analytische Definition des Begriffs Inertialsystem? [Operative or analytic definition of the concept of an inertial system?] **82k:70001**
Vizgin, V. P. *See* **Polak, L. S., 82c:70001**

secondary classifications:

Adler, Carl G. Why is mechanics based on acceleration? **(82f:01070)**
(Alihan'jan, A. I.) *See* **Bessarab, M. Ja., (82c:01045)**
(Archimedes) *See* **Beisenherz, H. G., (82j:01011)**
Barcaro, Umberto The concept of inertia in the *Discourses* of Galileo. (Italian. English summary) **(82k:01017)**
(Bašmakova, I. G.) *See* **History and methodology of the natural sciences, (82c:01004)**
Beer, Arthur (*with* Field, Judith V.) Kepler—his times, his work, his life and 400 years. **(82e:01031)**
Behrsin, M. P. Concepts of force and motion since 1687. **(82d:01002)**
Beisenherz, H. G. Archimedes und die Protophysik. [Archimedes and protophysics] **(82j:01011)**
Bernstein, Howard R. Conatus, Hobbes, and the young Leibniz. **(82b:01014)**
Bessarab, M. Ja. ★Ландау. (Russian) [Landau] **(82c:01045)**
(Bogoljubov, N. N.) *See* **Lučka, T. F., (82g:01062)**
von Borzeszkowski, Horst-Heino (*with* Wahsner, Renate) ★Newton und Voltaire. (German) [Newton and Voltaire] **(82i:01021)**
(Bos, H. J. M.) *See* **Studies on Christiaan Huygens, (82m:01036)**
Dampier, M. D. The laws of mechanics. **(82h:01025)**
Euler, Leonhard ★Commentationes mechanicae et astronomicae ad scientiam navalem pertinentes. Volumen prius. (Latin) [Mechanical and astronomical works pertaining to naval science. Vol. I] **(82e:01120)**
Field, Judith V. *See* **Beer, Arthur, (82e:01031)**
(Galilei, Galileo) *See* **Naylor, R. H., (82i:01015)** *and* **Barcaro, Umberto, (82k:01017)**
Gooding, David Metaphysics versus measurement: the conversion and conservation of force in Faraday's physics. **(82f:01047)**
Grigor'jan, A. T. (*with* Kirsanov, V. S.) Investigations in the history of mechanics. (Russian) **(82m:01077)**
Gürel, Okan Preface. **(82c:01035)**
(Habicht, Walter) *See* **Euler, Leonhard, (82e:01120)**
Hall, R. Cargill Shaping the course of aeronautics, rocketry, and astronautics: Theodore von Kármán, 1881–1963. **(82f:01110)**
(Hobbes, Thomas) *See* **Bernstein, Howard R., (82b:01014)**
(Huygens, Christiaan) *See* **Studies on Christiaan Huygens, (82m:01036)**
Janich, P. Newton ab omni naevo vindicatus. (German) **(82j:01034)**
(von Kármán, Theodore) *See* **Hall, R. Cargill, (82f:01110)**
(Kepler, Johannes) *See* **Beer, Arthur; et al., (82e:01031)**
Kipnis, N. Š. (*with* Pogrebysskaja, E. I.) Two problems in physical optics during the late 18th and early 19th centuries. (Russian) **(82j:01039)**
Kirsanov, V. S. *See* **Grigor'jan, A. T., (82m:01077)**
(Krylov, N. M.) *See* **Lučka, T. F., (82g:01062)**
(Landau, L. D.) *See* **Bessarab, M. Ja., (82c:01045)**
(Leibniz, Gottfried Wilhelm) *See* **Bernstein, Howard R., (82b:01014)**
Lučka, T. F. The contribution of N. M. Krylov and N. N. Bogoljubov to the development of variational methods in mathematical physics. (Russian) **(82g:01062)**
Mihailov, G. K. Current state and problems of the history of mechanics. (Russian) **(82f:01066)**
Naylor, R. H. Galileo's theory of projectile motion. **(82i:01015)**
(Newton, Isaac) *See* **Vita, Vincenzo, (82e:01046)**; **von Borzeszkowski, Horst-Heino; et al., (82i:01021)**; **Janich, P., (82j:01034)** *and* **Speiser, David R., (82m:01033)**
Pogrebysskaja, E. I. *See* **Kipnis, N. Š., (82j:01039)**
(Poser, Christa) *See* **von Borzeszkowski, Horst-Heino; et al., (82i:01021)**
(Rudwick, M. J. S.) *See* **Studies on Christiaan Huygens, (82m:01036)**
(Rybnikov, K. A.) *See* **History and methodology of the natural sciences, (82c:01004)**
Schubert, Hans Lichtensteins Verhältnis zu den Grundbegriffen der Mechanik. **(82h:01065)**
(Snelders, H. A. M.) *See* **Studies on Christiaan Huygens, (82m:01036)**
Sotnikov, V. S. Hamel's works on the foundations of mechanics. (Ukrainian. Russian summary) **(82j:01072)**
Speiser, David R. L. Euler. The principle of relativity and the foundations of classical mechanics. (Russian) **(82g:01023)**
★Newton's *Principia*. **(82m:01033)**

Svešnikova, V. A. On the question of the axiom of the parallelogram of forces. (Russian. English summary) **(82a:70002)**
Tjulina, I. A. Varignon's treatise *Nouvelle mécanique* (on the 250th anniversary of its publication). (Russian. English summary) **(82a:01018)**
See also **History and methodology of the natural sciences, (82c:01004)**
(Varignon, Pierre) *See* **Tjulina, I. A., (82a:01018)**
(Visser, R. P. W.) *See* **Studies on Christiaan Huygens, (82m:01036)**
Vita, Vincenzo The theory of conics in Newton's *Principia*. (Italian) **(82e:01046)**
(Voltaire, François Marie) *See* **von Borzeszkowski, Horst-Heino; et al., (82i:01021)**
Wahsner, Renate *See* **von Borzeszkowski, Horst-Heino, (82i:01021)**
Amsterdam ★Studies on Christiaan Huygens. **(82m:01036)**
Biography:
von Kármán, Theodore *See* **Hall, R. Cargill, (82f:01110)**
Kepler, Johannes *See* **Beer, Arthur; et al., (82e:01031)**
Landau, L. D. *See* **Bessarab, M. Ja., (82c:01045)**
Newton, Isaac *See* **Speiser, David R., (82m:01033)**
History and methodology of the natural sciences ★История и методология естественных наук. Вып XXV. (Russian) [History and methodology of the natural sciences. No. XXV] **(82c:01004)**
***Logarithmic potential* and other monographs** ★*The logarithmic potential* and other monographs. **(82j:01081)**
Natural sciences ★История и методология естественных наук. Вып XXV. (Russian) [History and methodology of the natural sciences. No. XXV] **(82c:01004)**
Studies on Christiaan Huygens ★Studies on Christiaan Huygens. **(82m:01036)**
Symposium:
Life and Work of Christiaan Huygens ★Studies on Christiaan Huygens. **(82m:01036)**

70–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Blacher, S. (*with* Perdang, J.) The power of chaos. **(82k:70025)**
Gutzwiller, Martin C. Periodic orbits in the anisotropic Kepler problem. **(82m:70012)**
Kazantzis, P. G. Numerical investigation of symmetric and asymmetric periodic oscillations. **(82i:70020)**
Kreuzer, Edwin ★Symbolische Berechnung der Bewegungsgleichungen von Mehrkörpersystemen. (German) [Symbolic computation of equations of motion of many-body systems] **(82k:70004)**
Perdang, J. *See* **Blacher, S., (82k:70025)**
Taylor, Donald Boggia Horseshoe periodic orbits in the restricted problem of three bodies for a Sun-Jupiter mass ratio. **(82m:70006)**

70–05 Experimental papers

70–06 Proceedings, conferences, etc.

(Rimrott, F. P. J.) *See* **Theoretical and applied mechanics, 82d:00008**
(Tabarrok, B.) *See* **Theoretical and applied mechanics, 82d:00008**
Conference:
Nonlinear Oscillations ★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. I. **82k:70002a**
★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. II. **82k:70002b**
Congress:
Theoretical and Applied Mechanics ★Theoretical and applied mechanics. **82d:00008**
Mechanics ★Theoretical and applied mechanics. **82d:00008**
Prague ★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. I. **82k:70002a**
★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. II. **82k:70002b**
Proceedings:
International Conference on Nonlinear Oscillations ★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. I. **82k:70002a**
★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. II. **82k:70002b**
Theoretical and applied mechanics ★Theoretical and applied mechanics. **82d:00008**
Toronto, Ont. ★Theoretical and applied mechanics. **82d:00008**

secondary classifications:

(Devaney, Robert L.) *See* **Classical mechanics and dynamical systems, (82k:58002)**
(Faddeev, L. D.) *See* **Differential geometry, Lie groups and mechanics, (82g:81002)**
(Nitecki, Zbigniew H.) *See* **Classical mechanics and dynamical systems, (82k:58002)**
(Vinogradov, A. I.) *See* **Differential geometry, Lie groups and mechanics, (82g:81002)**
Classical mechanics and dynamical systems ★Classical mechanics and dynamical systems. **(82k:58002)**
Conference:
NSF-CBMS Regional, Recent Developments in Celestial Mechanics ★Classical mechanics and dynamical systems. **(82k:58002)**
Differential geometry, Lie groups and mechanics ★Дифференциальная геометрия, группы Ли и механика. IV. (Russian) [Differential geometry, Lie groups and mechanics. IV] **(82g:81002)**
Medford, Mass. ★Classical mechanics and dynamical systems. **(82k:58002)**

70A05 Axiomatics, foundations

B"čvarov, S. (*with* Paraskov, C.; Pandov, V.) Sufficiency of the moment condition for an equilibrium of an arbitrary system of forces. (Bulgarian. Russian and English summaries) **82b:70001**
Čaus, M. M. A possible selection of physical invariants. (Russian) **82g:70001**
Fusco, Giorgio Some remarks on the problem of the choice of a reference frame. (Italian. English summary) **82g:70002**
Greenspan, Donald ★Arithmetic applied mathematics. **82d:70003**
Pandov, V. *See* **B"čvarov, S.; et al., 82b:70001**
Paraskov, C. *See* **B"čvarov, S.; et al., 82b:70001**
Peiffer, K. (*with* Rouche, N.) La représentation mathématique des forces et les principes de la mécanique. **82k:70003**
Rouche, N. *See* **Peiffer, K., 82k:70003**
Svešnikova, V. A. On the question of the axiom of the parallelogram of forces. (Russian. English summary) **82a:70002**

secondary classifications:

Balzer, Wolfgang ★Empirische Geometrie und Raum-Zeit-Theorie in mengentheoretischer Darstellung. (German) [Empirical geometry and space-time theory in set-theoretic representation] **(82i:03019)**
Galvao, Carlos A. P. (*with* Teitelboim, Claudio) Classical supersymmetric particles. **(82b:81129)**
Kondo, Kazuo An essay on the constitutional construction of external forces by higher order osculations. **(82k:70017a)**
An essay on the constitutional construction of external forces by higher order osculations. II. **(82k:70017b)**
Teitelboim, Claudio *See* **Galvao, Carlos A. P., (82b:81129)**
Vitjaev, E. E. Regularities in languages of empirical systems and the laws of classical physics. (Russian) **(82g:03013)**

70Bxx Kinematics [See also 53A17.]

70B05 Kinematics of a particle

Modugno, Marco On the structure of classical kinematics. I. Absolute kinematics. **82m:70001a**
On the structure of classical kinematics. II. Frames of reference. Observed kinematics. **82m:70001b**

secondary classifications:

Mathur, Renu *See* **Munot, P. C., (82c:34042)**
Munot, P. C. (*with* Mathur, Renu) On nonlinear oscillation problem. **(82c:34042)**

70B10 Kinematics of a rigid body

secondary classifications:

Bloom, John R. (*with* Whitt, Lee) The geometry of rolling curves. **(82h:53013)**
Whitt, Lee *See* **Bloom, John R., (82h:53013)**

70B15 Mechanisms and linkages

Baĭgunčekov, Ž. Ž. (*with* Džoldasbekov, S. U.) Differential equations of motion of plane lever mechanisms of higher classes with several degrees of freedom. (Russian) **82c:70003**
Bekjarov, B. (*with* Hristov, V.) Zones of reach and operation of plane manipulators. (Bulgarian. Russian and English summaries) **82c:70002**
Čifčieva, V. *See* **Konstantinov, M. S., 82g:70004**
Davitašvili, N. S. *See* **Tavhelidze, D. S., 82a:70003**
Džoldasbekov, S. U. *See* **Baĭgunčekov, Ž. Ž., 82c:70003**
Geise, Gerhard (*with* Modler, Karl-Heinz) Zusammenhang zwischen ebenen, sphärischen und räumlichen Koppelgetrieben. **82g:70003**
Hristov, V. *See* **Bekjarov, B., 82c:70002**
Kočev, Iv. Synthesis of lever mechanisms using linear programming methods. (Bulgarian. Russian and English summaries) **82h:70002**
Konstantinov, M. S. (*with* Čifčieva, V.) Determination of particular positions of four-link and five-link chains using relative transfer functions. (Russian. Bulgarian and English summaries) **82g:70004**
Larin, V. B. (*with* Naumenko, K. I.) Control of a walking apparatus with almost weightless legs. (Russian) **82d:70004**
Lebedev, P. A. (*with* Mamedov, V. A.) Vector equations of a three-dimensional six-element mechanism with variable length of the drive element. (Russian. Azerbaijani and English summaries) **82d:70005**
Mamedov, V. A. *See* **Lebedev, P. A., 82d:70005**
Modler, Karl-Heinz *See* **Geise, Gerhard, 82g:70003**
Naumenko, K. I. *See* **Larin, V. B., 82d:70004**
Sinicyn, V. A. On the Carnot theorem in the theory of impulsive motion of mechanical systems. **82g:70005**
Tavhelidze, D. S. (*with* Davitašvili, N. S.) Das Existenztheorem von Kurbeln in ebenen Siebengelenkgetrieben. **82a:70003**
Žuravlev, V. F. Equations of motion of mechanical systems with ideal one-sided links. **82g:70006**

secondary classifications:

Enčev, K. On multiple differentiation of x-composite and x-implicit functions associated with the analysis and synthesis of mechanisms. (Bulgarian. Russian and English summaries) **(82d:26001)**
Haug, Edward J. *See* **Huang, Ray C., (82i:90127a)**
Huang, Ray C. (*with* Haug, Edward J.) A distribution-theoretic method for design sensitivity analysis of mechanisms with intermittent motion. I. Theory. **(82i:90127a)**
Karadimitrov, D. Conic axoids (trajectories). (Bulgarian. Russian and German summaries) **(82b:51029)**

Krilanovskiĭ, V. V. A method for solving an inverse problem on the position of a manipulator. (Russian) **(82g:68091b)**
Popescu, P. On a central axis problem. (Romanian. French summary) **(82i:70001)**
Wunderlich, Walter Zur projektiven Invarianz von Wackelstrukturen. (English and Russian summaries) **(82k:53017)**

70B99 None of the above, but in this section

Kreuzer, Edwin ★Symbolische Berechnung der Bewegungsgleichungen von Mehrkörpersystemen. (German) [Symbolic computation of equations of motion of many-body systems] **82k:70004**
Lou, Jia Shun The limiting points of conjugate tooth-surfaces. (Chinese. English summary) **82k:70005**
Maitra, S. N. A simple application of the theorem of composition of accelerations. **82b:70002**

secondary classifications:

Baĭgunčekov, Ž. Ž. *See* **Džoldasbekov, U. A.; et al., (82b:53016)**
Benati, M. (*with* Gaglio, S.; Morasso, P.; Tagliasco, V.; Zaccaria, R.) Anthropomorphic robotics. I. Representing mechanical complexity. **(82f:92004a)**
(*with* Gaglio, S.; Morasso, P.; Tagliasco, V.; Zaccaria, R.) Anthropomorphic robotics. II. Analysis of manipulator dynamics and the output motor impedance. **(82f:92004b)**
Brunk, G. Geometrie und Integrabilität räumlicher Drehungen. [Geometry and integrability of spatial rotations] **(82j:70002)**
Cariñena, José F. (*with* del Olmo, Mariano A.; Santander, Mariano) Kinematic groups and dimensional analysis. **(82f:00016)**
Donis, A. A. *See* **Podkorytov, A. N., (82a:51019)**
Džoldasbekov, U. A. (*with* Baĭgunčekov, Ž. Ž.; Rysbaev, B. R.) Analytic determination of circular quadratic points. (Russian) **(82b:53016)**
Gaglio, S. *See* **Benati, M.; et al., (82f:92004a)** *and* **(82f:92004b)**
Hohenberg, Fritz Geschlossene gleichseitige Polygone, deren Ecken abwechselnd gegebenen Kreisen oder Geraden angehören. **(82k:51018)**
Jank, Walther Zur Kinematik des Kniegelenks. **(82j:51035)**
Landau, Mayer (*with* Tabary, F.; Valentini, Françoise A.) Un modèle mathématique pour l'évaluation des commandes nerveuses des muscles dans la marche normale. (English summary) **(82a:92014)**
Morasso, P. *See* **Benati, M.; et al., (82f:92004a)** *and* **(82f:92004b)**
O'Keeffe, J. D. A generalization of the vector product. **(82m:15035)**
del Olmo, Mariano A. *See* **Cariñena, José F.; et al., (82f:00016)**
Osipov, V. A. (*with* Osipova, L. I.) Theoretical fundamentals of the carcass-kinematic guiding line method. **(82k:53016)**
Osipova, L. I. *See* **Osipov, V. A., (82k:53016)**
Podkorytov, A. N. (*with* Donis, A. A.) Construction of normals at nodes of discretely given plane curves. (Russian) **(82a:51019)**
Pritulenko, P. V. ★Построение плоских фигур и сечений по специал'ным заданиям. (Russian) [Construction of plane figures and sections given specific conditions] **(82f:51018a)**
★Plane figures and sections: how to construct them given specific conditions. **(82f:51018b)**
Rysbaev, B. R. *See* **Džoldasbekov, U. A.; et al., (82b:53016)**
Santander, Mariano *See* **Cariñena, José F.; et al., (82f:00016)**
(Šokurov, Vladimir) *See* **Pritulenko, P. V., (82f:51018b)**
Tabary, F. *See* **Landau, Mayer; et al., (82a:92014)**
Tagliasco, V. *See* **Benati, M.; et al., (82f:92004a)** *and* **(82f:92004b)**
Valentini, Françoise A. *See* **Landau, Mayer; et al., (82a:92014)**
Zaccaria, R. *See* **Benati, M.; et al., (82f:92004a)** *and* **(82f:92004b)**

70Cxx Statics

70C05 Forces, fields

70C10 Potential energy

70C99 None of the above, but in this section

Popescu, P. On a central axis problem. (Romanian. French summary) **82i:70001**

secondary classifications:

Bolker, Ethan D. (*with* Roth, B.) When is a bipartite graph a rigid framework? **(82c:57003)**
Rosenberg, Ivo Structural rigidity. I. Foundations and rigidity criteria. **(82e:05012)**
Roth, B. *See* **Bolker, Ethan D., (82c:57003)**

70Dxx Dynamics of a particle [See also 70Hxx.]

70D05 Newtonian dynamics

Szopa, J. The analysis of dynamic systems of variable inertia described by the nonlinear stochastic differential equations. (*See* **82k:70002b**)

secondary classifications:

Modugno, Marco On the structure of classical kinematics. I. Absolute kinematics. **(82m:70001a)**
On the structure of classical kinematics. II. Frames of reference. Observed kinematics. **(82m:70001b)**

70D10 Lagrangian dynamics

Llosa, Josep (*with* Marquès, F.; Molina, A.) Predictive extension of a singular Lagrangian system. **82e:70004**
Marquès, F. *See* **Llosa, Josep; et al., 82e:70004**
Molina, A. *See* **Llosa, Josep; et al., 82e:70004**
Tatarinov, Ja. V. Deformations of the manifold of positions, and quadratic integrals of a natural system in classical dynamics. (Russian) **82f:70002**

secondary classifications:

Popescu, Mihai Florin On the optimal transfer of a space vehicle at the libration point equidistant from the Earth-Moon system. (Romanian) **(82e:70025)**

70D99 None of the above, but in this section

Bollé, D. (*with* Osborn, T. A.) Sum rules in classical scattering. **82i:70002**
Fusco, Giorgio Motion of a particle on the plane surface of a solid: the linked-element scheme as a limit of a family of free schemes. (Italian) **82j:70001**
Osborn, T. A. *See* **Bollé, D., 82i:70002**
Ross, Dieter K. The motion of a simple pendulum with uniformly shortening string length. **82e:70005**
Zhu, Dong Pei Noether symmetry of the single-particle system. **82i:70003**

secondary classifications:

Matasov, A. I. Phase curves of the equation of motion of a point mass. **(82d:58031)**
Namsrai, H. A stochastic model for the motion of two relativistic particles. **(82f:81022)**

70Exx Dynamics of rigid bodies

(Rubanovskiĭ, V. N.) *See* **Wittenburg, Jens, 82c:70003**
(Sergeev, V. S.) *See* **Wittenburg, Jens, 82c:70003**
(Stepanov, S. Ja.) *See* **Wittenburg, Jens, 82c:70003**
Wittenburg, Jens ★Динамика систем твердых тел. (Russian) [Dynamics of systems of rigid bodies] **82c:70003**

secondary classifications:

Kozlov, V. V. ★Методы качественного анализа в динамике твердого тела. (Russian) [Methods of qualitative analysis in the dynamics of a rigid body] **(82e:70002)**

70E05 Motion of the gyroscope

Čudnenko, O. M. On the stability of uniform rotations of a rigid body around the principal axis. **82f:70003**
Elfimov, V. S. Existence of periodic solutions of equations of motion of a solid body similar to the Lagrange gyroscope. **82g:70007**
Grioli, Antonio Claudio On the motion of a gyroscope in a central gravitational field. (Italian) **82g:70008**
Harlamov, P. V. (*with* Lesina, M. E.) An exact solution for the problem of motion of the Lagrange two-gyroscope system. (Russian. English summary) **82g:70009**
Konkina, L. I. On an averaging method in dynamics of a rigid body. **82h:70003**
Lesina, M. E. *See* **Harlamov, P. V., 82g:70009**
Osipov, V. Z. (*with* Sulikašvili, R. S.) Stability of steady-state motions of a balanced gyrostat. (Russian) **82d:70006**
Pozdnjakovič, E. V. (*with* Sudakov, S. N.) Necessary and sufficient conditions for stability of uniform rotations of a gyrostat with a rotor that has a vortex filling. (Russian) **82d:70007**
Rumjancev, V. V. Stability of rotation of a heavy gyrostat on a horizontal plane. **82d:70008**
Skimel', V. N. On the stiffness property of motion. **82i:70004**
Sosnickiĭ, S. P. Instability of gyroscopic systems. (Russian. English summary) **82c:70004**
Sudakov, S. N. *See* **Pozdnjakovič, E. V., 82d:70007**
Sulikašvili, R. S. *See* **Osipov, V. Z., 82d:70006**
Žbanov, Ju. K. Exact solutions of the equations of motion of a gyro horizon compass. **82h:70004**

secondary classifications:

Brjuno, A. D. ★Локальный метод нелинейного анализа дифференциальных уравнений. (Russian) [A local method of nonlinear analysis for differential equations] **(82b:34033)**
Harlamov, M. P. *See* **Pogosjan, T. L., (82g:70016)**
Lobas, L. G. Nonholonomic system which models rolling of a tricycle along a plane. **(82g:70028)**
Pogosjan, T. L. (*with* Harlamov, M. P.) Bifurcation set and integral manifolds of the problem concerning the motion of a rigid body in a linear force field. **(82g:70016)**

70E10 Motion of projectiles and rockets

Pagan, G. (*with* Richards, P. J.) A bound for solutions of a fourth order dynamical system. **82g:70010**
Pascu, Vasile Considerations on the optimization of almost vertical trajectories of rockets moving in a resisting medium with variable constraints on the magnitude of the thrust. (Romanian) **82g:70011**
Richards, P. J. *See* **Pagan, G., 82g:70010**

secondary classifications:

Popescu, Mihai Florin On an asymptotic representation related to the integration of the equation of motion of a rocket in a resistant medium. (Romanian) **(82e:70026)**

70E15 Motion of a general rigid body

Antončik, V. S. Control of the orientation of a rigid body in a given direction with incomplete feedback. (Russian) **82g:70012**
Caughey, T. K. A mathematical model of the "rattleback". (French summary) **82d:70009**
Čelnokov, Ju. N. On integration of kinematic equations of a rigid body's screw-motion. **82g:70013**
Essén, Hanno The cat landing on its feet revisited or angular momentum conservation and torque-free rotations of nonrigid mechanical systems. **82g:70014**
Gorr, G. V. Asymptotically uniform motions of a solid with a fixed point in a potential force field. (Russian) **82d:70010**
Harlamov, M. P. *See* **Pogosjan, T. I., 82g:70016**
Kozlov, V. V. Nonexistence of univalued integrals and branching of solutions in rigid body dynamics. **82g:70015**
Pogosjan, T. I. (*with* Harlamov, M. P.) Bifurcation set and integral manifolds of the problem concerning the motion of a rigid body in a linear force field. **82g:70016**
Sergysels, R. *See* **Sergysels-Lamy, A., (*See* 82k:70002b)**
Sergysels-Lamy, A. (*with* Sergysels, R.) Le pendule avec gyrostat: un système intégrable? [The pendulum and gyrostat: an integrable system?] (*See* **82k:70002b**)
Trofimov, V. V. Euler equations on finite-dimensional solvable Lie groups. (Russian) **82e:70006**
Zakrževskiĭ, A. E. Programmed angular motion of a load-carrying body with elastic elements in a central force field. **82h:70003**
Ziglin, S. L. Branching of solutions and the nonexistence of an additional first integral in the problem of an asymmetric heavy rigid body in motion relative to a fixed point. (Russian) **82e:70005**
Zubov, V. I. Optimal damping of rotational motion. **82h:70005**

secondary classifications:

Bolotnik, N. N. (*with* Kaplunov, A. A.) Some problems of optimal control of rotation of a solid. **(82j:49003)**
Kaplunov, A. A. *See* **Bolotnik, N. N., (82j:49003)**
Komarov, I. V. The Kovalevskaja basis for the hydrogen atom. (Russian. English summary) **(82g:81011)**
Kozlov, V. V. Periodic oscillations of a composite pendulum. **(82f:70011)**
Šidlichovský, M. On the two triaxial rigid body problem. (Russian summary) **(82d:70026)**

70E20 Perturbation methods for Euler's equations

Apyhtin, N. G. Oscillations of a solid about the permanent steady-state rotations. **82g:70017**
Sergeev, V. S. On periodic solutions of the Euler-Poisson equations. **82k:70006**
Troger, H. Heteroklinische Punkte und das Pendel mit periodisch erregtem Aufhängepunkt. **82h:70006**

secondary classifications:

Zakrževskiĭ, A. E. Programmed angular motion of a load-carrying body with elastic elements in a central force field. **(82h:70003)**

70E25 Poinsot method

secondary classifications:

Saryčev, V. A. *See* **Zlatoustov, V. A.; et al., (82h:34048)**
Sazonov, V. V. *See* **Zlatoustov, V. A.; et al., (82h:34048)**
Zlatoustov, V. A. (*with* Sazonov, V. V.; Saryčev, V. A.) Forced periodic oscillations of the simple pendulum. **(82h:34048)**

70E99 None of the above, but in this section

Brunk, G. Geometrie und Integrabilität räumlicher Drehungen. [Geometry and integrability of spatial rotations] **82j:70002**
Burlaka, V. S. *See* **Grobov, V. O., 82k:70007**
Burns, Joseph A. Ball rolling on a turntable: analog for charged particle dynamics. **82d:70011**
Chevallier, Dominique Géométrie des groupes de Lie et théorie newtonienne de l'inertie. (English summary) **82d:70012**
Diamandiev, Vassil A. Application of Chapligin's equations for a nonholonomic rigid body. **82j:70003**
Galgani, Luigi (*with* Giorgilli, A.; Strelcyn, J.-M.) Chaotic motions and transition to stochasticity in the classical problem of the heavy rigid body with a fixed point. (Italian and Russian summaries) **82j:70004**
Giorgilli, A. *See* **Galgani, Luigi; et al., 82j:70004**
Grobov, V. O. (*with* Burlaka, V. S.) Dynamics of the rotational motion of a free rigid body that is supporting an elastically suspended spherical flywheel. (Russian) **82k:70007**
Hubert, Carl Dynamics of the generalized dual-spin turn. **82i:70005**
Jah'ja, H. M. On the stability of the planar motions of a rigid body around a fixed point in a Newtonian force field. (Russian. English summary) **82m:70002**
Junkins, John L. (*with* Turner, James D.) On the analogy between orbital dynamics and rigid body dynamics. **82c:70006**
Koval'ov, O. M. (*with* Ščerbak, V. F.) The possibility of determining variables of the force and Magnus moment coefficients by methods of identification theory. (Russian) **82i:70006**
Lebedev, D. V. Control of motion of a rigid body in a gravitational field. **82g:70018**
Ngo Zuï Kan Rotary motion of a rigid body with a cavity partially filled with a fluid. (Russian) **82i:70007**
Ščerbak, V. F. *See* **Koval'ov, O. M., 82i:70006**
Strelcyn, J.-M. *See* **Galgani, Luigi; et al., 82j:70004**
Tatarinov, Ja. V. A global view of the dynamics of a rigid body. Description of the configuration. (Russian. French summary) **82a:70013**
A global view of the dynamics of a rigid body. Passage to the quotient system. (Russian. French summary) **82a:70014**
Turner, James D. *See* **Junkins, John L., 82c:70006**

secondary classifications:

Akulenko, L. D. Time-optimal stabilization of a perturbed system with invariant norm. **(82k:49026)**
Beljaev, A. V. Motion of a multidimensional body with a fixed point in a gravitational force field. (Russian) **(82i:58027)**
Haitin, A. A problem of the rolling of a body of arbitrary form from a smooth convex surface on a plane. (Russian. English summary) **(82m:53009)**
Krementulo, V. V. Stabilization of the equilibrium position of a solid body using movable masses. **(82k:70032)**
Kuz'mina, L. K. On stability of systems of gyroscopic stabilization in the presence of perturbations. **(82h:34068)**
Kuznecov, G. I. Tops and finite-rotation matrices in odd-dimensional spaces. **(82i:81155)**
Markeev, A. P. On steady rotations of a rigid body in a periodic orbit near the collinear libration point. **(82g:70021)**
Perelomov, A. M. Some remarks on the integrability of the equations of motion of a rigid body in an ideal fluid. (Russian) **(82j:58066)**
Ratiu, Tudor Euler-Poisson equations on Lie algebras and the N-dimensional heavy rigid body. **(82g:58032)**
Veĭssenberg, A. N. Algorithm for the derivation of Liapunov's function in the form of a sum of squares of integrals. **(82k:34063)**
Vil'ke, V. G Existence and uniqueness of solutions in the problem of the motion of a system consisting of an elastic body and a solid. (Russian. French summary) **(82e:73041)**
Wildheim, Jörgen Vibrations of rotating circumferentially periodic structures. **(82g:73021)**
Ziglin, S. L. Bifurcation of solutions and nonexistence of integrals in Hamiltonian systems. (Russian) **(82j:58051)**

70Fxx Dynamics of a system of particles, including celestial mechanics

70F05 Two-body problem

Afanas'ev, G. N. (*with* Asanov, R. A.) On the gravitational two-body problem in special relativity. (German summary) **82j:70005**
Asanov, R. A. *See* **Afanas'ev, G. N., 82j:70005**
Belbruno, Edward A. Regularizations and geodesic flows. (*See* **82k:58002**)
Belen'kiĭ, I. M. A method of regularizing the equations of motion in the central force-field. **82e:70007**
Berkovič, L. M. Gylden-Meščerskiĭ problem. **82i:70008**
Eliezer, C. J. *See* **Prince, G. E., 82c:70008**
Gečev, T. G. *See* **Škodrov, V. G., 82m:70003**
Nacozy, Paul E. Time elements in Keplerian orbital elements. **82c:70007**
Prince, G. E. (*with* Eliezer, C. J.) On the Lie symmetries of the classical Kepler problem. **82c:70008**
Šidlichovský, M. The elimination of the short periodic perturbations in the problem of two finite bodies. (Russian summary) **82k:70008**
Škodrov, V. G. (*with* Gečev, T. G.) Some qualitative characteristics of the force function between two celestial bodies. **82m:70003**
Yoshida, Junzo Topology of the negative energy-manifold of the Kepler motion. (Japanese summary) **82i:70009**

secondary classifications:

Baumgarte, J. Eine Lie-Algebra, die Delaunay-similar-Elemente in der exzentrischen Anomalie erzeugt. (English summary) **(82h:70020)**
Burov, A. V. Investigation of the effect of delay in gravitational interaction in the classical problem of celestial mechanics. (Russian) **(82m:70010)**

70F07 Three-body problem

Albrycht, Jerzy (*with* Marciniak, Andrzej) Orbit calculations nearby the equilibrium points by a discrete mechanics method. **82h:70007**
Anderson, J. D. *See* **Broucke, R.; et al., 82g:70019**
Anosova, Ž. P. (*with* Zavalov, N. N.) Close triple approaches in the three-body problem. (Russian. English summary) **82i:70010**
Barkin, Ju. V. (*with* Kitova, V. A.) Libration solutions in an averaged three-body problem. (Russian. Kazakh summary) **82m:70004**
Bhatnagar, K. B. (*with* Gupta, Beena) Resonance in the restricted problem of three bodies with short-periodic perturbations. **82d:70013**
(*with* Gupta, Beena) Resonance in the restricted problem of three bodies with short period perturbations in elliptic case. **82j:70006**
Blitzer, L. *See* **Broucke, R.; et al., 82g:70019**
Brjuno, A. D. Researches on the restricted three-body problem. II. Periodic solutions and arcs for $\mu=0$. **82e:70008a**
Researches on the restricted three-body problem. III. Properties of the solutions for $\mu=0$. **82e:70008b**
On periodic flybys of the Moon. **82i:70011**
Broucke, R. (*with* Anderson, J. D.; Blitzer, L.; Davoust, E.; Lass, H.) Periodic solutions about the collinear Lagrangian solution in the general problem of three bodies. **82g:70019**
Chen, Xiang Yan (*with* Luo, Ding Jun; Sun, Yi Sui) On the H. Poincaré fixed-point theorem. (Chinese. English summary) **82j:70007**

Davoust, E. *See* **Broucke, R.; et al., 82g:70019**
Gupta, Beena *See* **Bhatnagar, K. B., 82d:70013** *and* **82j:70006**
Hitzl, Donald L. (*with* Levinson, David A.) Application of Hamilton's law of varying action to the restricted three-body problem. **82d:70014**
Holševnikov, K. V. *See* **Sokolov, L. L., 82c:70013a** *and* **82c:70013b**
Ichtiaroglou, S. Elliptic Hill's problem: the continuation of periodic orbits. **82c:70009**
(*with* Katopodis, K.; Michalodimitrakis, M.) General three-body problem: families of vertical critical periodic orbits. **82c:70010**
Elliptic Hill problem: families of periodic orbits. **82g:70020**
Ivanov, A. P. Investigation of stability of constant Lagrange solutions of the plane unrestricted three-body problem. **82i:70012**
Jakovleva, N. S. *See* **Šerstjuk, A. I., 82d:70017**
Kammeyer, P. C. Properties of linearized mappings associated with periodic orbits in the three-body problem. **82c:70011**
Katopodis, K. *See* **Ichtiaroglou, S.; et al., 82c:70010**
Kitova, V. A. *See* **Barkin, Ju. V., 82m:70004**
Langebartel, R. G. Formulation of the restricted three-body problem with two-center problem orbits as intermediate orbits. **82e:70009**
Lass, H. *See* **Broucke, R.; et al., 82g:70019**
Levinson, David A. *See* **Hitzl, Donald L., 82d:70014**
Llibre, Jaume (*with* Simó, Carlos) Some homoclinic phenomena in the three-body problem. **82i:70013**
Losco, L. (*with* Marchal, C.) Sur une nouvelle propriété des équations linéarisées de la collision triple du problème des 3 corps. (English summary) [A new property of variational equations of the triple collision in the 3-body problem] **82m:70005**
Luo, Ding Jun *See* **Chen, Xiang Yan; et al., 82j:70007**
Marchal, C. *See* **Losco, L., 82m:70005**
Marciniak, Andrzej *See* **Albrycht, Jerzy, 82h:70007**
Markeev, A. P. On steady rotations of a rigid body in a periodic orbit near the collinear libration point. **82g:70021**
Marsicano, F. R. Qualitative aspects of the three-body problem. (Spanish) **82h:70008**
McKenzie, R. (*with* Szebehely, Victor) Nonlinear stability around the triangular libration points. **82d:70015**
Meire, R. A contribution to the stability of the triangular points in the elliptic restricted three-body problem. (Russian summary) **82c:70012**
The stability of the triangular points in the elliptic restricted problem. **82d:70016**
Mettler, E. Über eine Kombinationsresonanz im Dreikörperproblem. (English and Russian summaries) **82f:70004**
Michalodimitrakis, M. *See* **Ichtiaroglou, S.; et al., 82c:70010**
Perko, L. M. Second species solutions with an $O(\mu^r)$, $0<r<1$, near-Moon passage. **82j:70008**
Šerstjuk, A. I. (*with* Jakovleva, N. S.) Application of two-centered functions of a clearly discrete spectrum in an adiabatic representation of the three-body problem. (Russian) **82d:70017**
Sharma, Ram Krishan Periodic orbits of the second kind in the restricted three-body problem when the more massive primary is an oblate spheroid. **82e:70010**
Simó, Carlos *See* **Llibre, Jaume, 82i:70013**
Singh, Virendra Application of Fatou and Delaunay-Hill mean schemes in the formation of periodic solutions in the restricted problem of three bodies. **82d:70018**
Sokolov, L. L. (*with* Holševnikov, K. V.) On the representability of solutions of three-body problems by conditionally periodic functions. I. **82c:70013a**
(*with* Holševnikov, K. V.) Representability of solutions of three-body problems by conditionally periodic functions. II. **82c:70013b**
Sun, Yi Sui *See* **Chen, Xiang Yan; et al., 82j:70007**
Szebehely, Victor *See* **McKenzie, R., 82d:70015**
Taylor, Donald Boggia Horseshoe periodic orbits in the restricted problem of three bodies for a Sun-Jupiter mass ratio. **82m:70006**
Thai, V. N. On stability of constant Laplace solutions of the unrestricted three-body problem. **82m:70007**
Timoškova, E. I. The formal integrals of the restricted, plane, three-body problem. **82d:70019**
The formal integrals of the regularized restricted planar problem of three bodies. (Russian summary) **82f:70005**
van Velsen, J. F. C. Isoenergetic families of quasiperiodic solutions near the equilateral solution of the three-body problem. **82g:70022**
Vereš, F. Analytical solution of the plane, averaged, restricted, three-body problem in the case of circulation of the pericenter of the orbit of the particle. **82d:70020**
Two particular types of solution of the plane, averaged, restricted, three-body problem. **82d:70021**
Zare, K. Properties of the moment of inertia in the problem of three bodies. **82h:70009**
Zavalov, N. N. *See* **Anosova, Ž. P., 82i:70010**
Ziglin, S. L. On periodic almost doubly asymptotic solutions of the bounded circular three-body problem. **82m:70008**
Žuravlev, S. G. Construction of conditionally periodic solutions of the restricted, three-dimensional, circular three-body problem in resonance cases. I. Elimination of short-period terms. **82c:70014**

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Belbruno, Edward A. A new regularization of the restricted three-body problem and an application. **(82m:70017)**
Bottkol, Matthew Bifurcation of periodic orbits on manifolds and Hamiltonian systems. **(82d:58061)**
Devaney, Robert L. Triple collision in the planar isosceles three-body problem. **(82m:58048)**
The baker transformation and a mapping associated to the restricted three-body problem. **(82m:58036)**
Fahnline, Donald E. Classification of orbits of Fokker's time-asymmetric relativistic two-body problem. **(82i:83003)**
Johnson, Bruce R. On hyperspherical coordinates and mapping the internal configurations of a three-body system. **(82f:81092)**
McKenzie, R. *See* **Szebehely, Victor, (82h:58058)**
Ojika, Takeo (*with* Welsh, Wayne) A numerical method for multipoint boundary value problems with application to a restricted three-body problem. **(82h:65063)**
Perko, L. M. Periodic orbits in the restricted problem: an analysis in the neighborhood of a 1st species-2nd species bifurcation. **(82j:70010)**
Szebehely, Victor (*with* McKenzie, R.) Deformation of a line-element in the phase space at the triangular libration point. **(82h:58058)**
Welsh, Wayne *See* **Ojika, Takeo, (82h:65063)**

70F10 *n*-body problem

Barucchi, G. Graphs and an exactly solvable N-body problem in one dimension. (Italian and Russian summaries) **82h:70004**
Emslie, A. Gordon *See* **Walker, Ian W.; et al., 82a:70006**
Imnadze, M. P. Determination of the perturbations of elements of an orbit in the restricted n-body problem on the basis of quasi-integrals in spherical coordinates. (Russian) **82a:70004**
Luk'janov, L. G. On the conservation of symmetry of the solutions of the many-body problem in a moving coordinate system. **82a:70005**
Meyer, Kenneth R. Periodic orbits near infinity in the restricted N-body problem. **82c:70015**
Monaghan, J. J. *See* **Nash, P. E., 82d:70022**
Nash, P. E. (*with* Monaghan, J. J.) A statistical theory for the disruption of four-body systems. **82d:70022**
Palmore, Julian I. Relative equilibria of the n-body problem in E^4. **82c:70016**
Homographic solutions of the n-body problem in E^4. **82j:70009a**
Central configurations of the restricted problem in E^4. **82j:70009b**
Roy, Archie E. *See* **Walker, Ian W.; et al., 82a:70006**
Sazdjian, H. Relativistic and separable classical Hamiltonian particle dynamics. **82m:70009**
Walker, Ian W. (*with* Emslie, A. Gordon; Roy, Archie E.) Stability criteria in many-body systems. I. An empirical stability criterion for corotational three-body systems. **82a:70006**

secondary classifications:

Hadjidemetriou, John D. The present status of periodic orbits. **(82d:70023)**
Horwitz, L. P. (*with* Rohrlich, Fritz) Constraint relativistic quantum dynamics. **(82j:81016)**
Kobussen, J. A. On a systematic search for integrals of the motion. **(82d:70035)**
Rohrlich, Fritz *See* **Horwitz, L. P., (82j:81016)**

70F15 Celestial mechanics

Agekjan, T. A. (*with* Saginašvili, M. G.) Motion in a rotationally symmetric potential field: properties of near-circular motion. **82k:70009**
Bacchus, P. (*with* Hecquet, J.) À propos de la précession. **82g:70023**
Bakry, Abdel A. *See* **Kamel, Osman Said Mostafa, 82h:70013**
Bhatnagar, K. B. (*with* Gupta, Udaiprakash) The existence and stability of the libration points of an axisymmetric body moving around another axisymmetric body. **82a:70008**
Broucke, R. *See* **Szebehely, Victor, 82g:70026**
Brumberg, V. A. ★Аналитические алгоритмы небесной механики. (Russian) [Analytic algorithms in celestial mechanics] **82g:70024**
Burov, A. V. Investigation of the effect of delay in gravitational interaction in the classical problem of celestial mechanics. (Russian) **82m:70010**
Cohen, C. J. (*with* Lyddane, R. H.) Radius of convergence of Lie series for some elliptic elements. **82m:70011**
Deprit, André Intrinsic variational equations in three dimensions. **82h:70010**
Dubošin, G. N. A special case of expansion of the general force function of two rigid bodies. (Russian. English summary) **82e:70011**
A special case of the restricted problem of three rigid bodies. (Russian. English summary) **82e:70012**
Engels, R. C. (*with* Junkins, John L.) The gravity-perturbed Lambert problem: a KS variation of parameters approach. **82h:70011**
Fomin, V. N. Representation of a gravitational field of rotationally symmetric bodies by attraction of point masses. (Russian. English summary) **82a:70009**
Goldreich, Peter (*with* Tremaine, Scott) Disk-satellite interactions. **82a:70010**
Greenberg, Richard Apsidal precession of orbits about an oblate planet. **82h:70012**
Gupta, Udaiprakash *See* **Bhatnagar, K. B., 82a:70008**
Gutzwiller, Martin C. Periodic orbits in the anisotropic Kepler problem. **82m:70012**
Hadjidemetriou, John D. The present status of periodic orbits. **82d:70023**
Hecquet, J. *See* **Bacchus, P., 82g:70023**
Huaux, Aimé Sur le problème restreint des trois corps. **82m:70013**
Hut, P. Stability of tidal equilibrium. **82d:70024**
Junkins, John L. *See* **Engels, R. C., 82h:70011**
Kamel, Osman Said Mostafa (*with* Bakry, Abdel A.) Expansion of the inverse of mutual distance between two bodies raised to any power. **82h:70013**
Lestrade, J.-F. Perturbations relativistes des orbites planétaires dans la métrique de Schwarzschild généralisée à trois paramètres. Cas de Mercure. (English summary) **82g:70025**
Lyddane, R. H. *See* **Cohen, C. J., 82m:70011**
Mamedov, N. S. (*with* Sultanov, G. F.) On the triple resonance case of the perturbed motion of a satellite of a spheroidal planet. (Russian. Azerbaijani and English summaries) **82e:70013**
Markellos, V. V. (*with* Szebehely, Victor) Approximations of satellite stability. **82h:70014**
Message, P. J. Bounds on secular terms in celestial mechanics. **82d:70025**
Omarkulov, K. A. *See* **Omarov, T. B., 82k:70010**
Omarov, T. B. (*with* Omarkulov, K. A.) On integrable nonstationary problems of celestial mechanics. (Russian. English summary) **82k:70010**

Perko, L. M. Periodic orbits in the restricted problem: an analysis in the neighborhood of a 1st species-2nd species bifurcation. **82j:70010**
Peters, C. F. Numerical integration of the satellites of the outer planets. **82m:70014**
Roy, Archie E. *See* **Walker, Ian W., 82h:70015**
Rüssmann, Helmut Konvergente Reihenentwicklungen in der Störungstheorie der Himmelsmechanik. **82j:70011**
Saginašvili, M. G. *See* **Agekjan, T. A., 82k:70009**
Sharaf, Mohamed Adel Expansion theory for the elliptic motion of arbitrary eccentricity and semimajor axis. I. Analyses of the function $F^{(N,n)}(\theta, x_n, \xi_n) = \Pi_{i=1}^{n}(1-\xi_i \sin^{2N}\theta)^{x_i}$. **82a:70007**
Šidlichovský, M. On the two triaxial rigid body problem. (Russian summary) **82d:70026**
Sokolov, V. G. Symmetric trajectories of a satellite of a nonspherical planet. (Russian. English summary) **82m:70015**
Stellmacher, I. Periodic orbits around an oblate spheroid. **82c:70017**
Sultanov, G. F. *See* **Mamedov, N. S., 82e:70013**
Szebehely, Victor (*with* Broucke, R.) Determination of the potential in a synodic system. **82g:70026**
See also **Markellos, V. V., 82h:70014**
Tremaine, Scott *See* **Goldreich, Peter, 82a:70010**
Vu, D. T. Les grandes inégalités et les termes de libration des satellites I, II et III de Jupiter. (English summary) **82a:70011**
Walker, Ian W. (*with* Roy, Archie E.) Stability criteria in many-body systems. II. On a sufficient condition for the stability of coplanar hierarchical three-body systems. **82h:70015**
Wiesel, W. E. The origin and evolution of the great resonance in the Jovian satellite system. **82d:70027**

secondary classifications:

Anikovskiĭ, V. V. *See* **Žuravlev, S. G., (82h:70033)**
Anosova, Ž. P. (*with* Zavalov, N. N.) Close triple approaches in the three-body problem. (Russian. English summary) **(82i:70010)**
Avron, Joseph E. (*with* Simon, Barry) Almost periodic Hill's equation and the rings of Saturn. **(82d:58038)**
Belen'kiĭ, I. M. A method of regularizing the equations of motion in the central force-field. **(82e:70007)**
Bhatnagar, K. B. (*with* Taqvi, Z. A.) Perturbations of the elements of near-circular earth satellite orbits. **(82i:70029)**
Burgan, J. R. *See* **Munier, A.; et al., (82h:70011)**
Chapront, J. *See* **Chapront-Touzé, M., (82g:85013)**
Chapront-Touzé, M. (*with* Chapront, J.) Les perturbations planétaires de la lune. Comparaison de ELP-1900 avec la solution de Brown. (English summary) **(82g:85013)**
Devaney, Robert L. Morse-Smale singularities in simple mechanical systems. **(82j:58070)**
Feix, M. R. *See* **Munier, A.; et al., (82h:70011)**
Fijalkow, E. *See* **Munier, A.; et al., (82h:70011)**
Goldreich, Peter (*with* Tremaine, Scott) The origin of the eccentricities of the rings of Uranus. **(82c:85006)**
Hitzl, Donald L. Numerical determination of the capture/escape boundary for the Hénon attractor. **(82j:58076)**
Ichtiaroglou, S. Elliptic Hill's problem: the continuation of periodic orbits. **(82c:70009)**
(*with* Katopodis, K.; Michalodimitrakis, M.) General three-body problem: families of vertical critical periodic orbits. **(82c:70010)**
Imnadze, M. P. Determination of the perturbations of elements of an orbit in the restricted n-body problem on the basis of quasi-integrals in spherical coordinates. (Russian) **(82a:70004)**
Katopodis, K. *See* **Ichtiaroglou, S.; et al., (82c:70010)**
Konkina, L. I. On an averaging method in dynamics of a rigid body. **(82h:70003)**
Liu, Lin (*with* Zhao, De Zi) Solar and lunar perturbation of the orbit of an artificial satellite. (Chinese. English summary) **(82h:70029)**
Magnenat, P. *See* **Martinet, L., (82g:85002)**
Markeev, A. P. (*with* Sokol'skiĭ, A. G.) Method of constructing and investigating stability of periodic motions of autonomous Hamiltonian systems. **(82i:70031)**
On steady rotations of a rigid body in a periodic orbit near the collinear libration point. **(82g:70021)**
Martinet, L. (*with* Magnenat, P.) Invariant surfaces and orbital behaviour in dynamical systems with 3 degrees of freedom. **(82g:85002)**
Mavraganis, A. G. A reduction of the magnetic-binary problem by means of the energy integral. **(82f:78005)**
Michalodimitrakis, M. *See* **Ichtiaroglou, S.; et al., (82c:70010)**
Munier, A. (*with* Burgan, J. R.; Feix, M. R.; Fijalkow, E.) Asymptotic solutions for a variable mass two-body problem. **(82h:70011)**
Perko, L. M. Second species solutions with an $O(\mu^{\nu})$, $0<\nu<1$, near-Moon passage. **(82j:70008)**
Schutz, B. E. The mutual potential and gravitational torques of two bodies to fourth order. **(82h:70034)**
Simon, Barry *See* **Avron, Joseph E., (82d:58038)**
Sokol'skiĭ, A. G. *See* **Markeev, A. P., (82i:70031)**
(Szűcs, J.) *See* **American Mathematical Society Translations, Ser. 2, (82f:00004)**
Taqvi, Z. A. *See* **Bhatnagar, K. B., (82i:70029)**
Tong, Fu *See* **Wu, Lian Da, (82h:70032)**
Tremaine, Scott *See* **Goldreich, Peter, (82c:85006)**
Wu, Lian Da (*with* Tong, Fu) A third-order solution of Vinti's problem with explicit expressions for the Poisson brackets. **(82h:70032)**
Zavalov, N. N. *See* **Anosova, Ž. P., (82i:70010)**
Zhao, De Zi *See* **Liu, Lin, (82h:70029)**
Žuravlev, S. G. (*with* Anikovskiĭ, V. V.) Expansion of the perturbing function of a satellite restricted four-body problem. **(82h:70033)**
American Mathematical Society Translations, Ser. 2 ★American Mathematical Society Translations, Ser. 2, Vol. 116. **(82f:00004)**
Dynamical systems ★American Mathematical Society Translations, Ser. 2, Vol. 116. **(82f:00004)**

70F20 Holonomic systems

Ahmed, Shafique Equilibrium configurations of some one-dimensional systems. **82m:70016**

secondary classifications:

Batalin, I. A. Quasigroup construction and first class constraints. **(82k:22016)**
Kazantzis, P. G. Numerical investigation of symmetric and asymmetric periodic oscillations. **(82i:70020)**
Rumjancev, V. V. On Hamilton's principle for nonholonomic systems. **(82k:70015)**

70F25 Nonholonomic systems

Do Šan' On the principle of compatibility and the equations of motion of constrained mechanical systems. **82b:70005**
Iliev, Ilija P. The relation between equivalent systems and application of the Hamilton-Jacobi theorem to nonholonomic systems. (Bulgarian. Russian and English summaries) **82k:70011**
First integrals of a class of nonholonomic systems. (Bulgarian. Russian and English summaries) **82g:70027**
Karapetjan, A. V. On the stability of steady motions of Chaplygin's nonholonomic systems. **82f:70006**
Leipholz, Horst Analysis of nonconservative, nonholonomic systems. (*See* **82d:00008**)
Lobas, L. G. Nonholonomic system which models rolling of a tricycle along a plane. **82g:70028**
Novoselov, V. S. On classes of equivalence of nonholonomic coordinates. (Russian. English summary) **82g:70029**

secondary classifications:

Iliev, Ilija P. Čaplygin's reducing multiplier. (Bulgarian. Russian and English summaries) **(82h:70018)**
Roščupkin, L. D. A generalized form of Čaplygin-Voronec-type equations. (Russian. English summary) **(82h:93043)**

70F30 Impulsive motion

70F35 Collisions

Belbruno, Edward A. A new regularization of the restricted three-body problem and an application. **82m:70017**
Narnhofer, Heide (*with* Thirring, W.) Canonical scattering transformation in classical mechanics. **82c:70018**
Thirring, W. *See* **Narnhofer, Heide, 82c:70018**

secondary classifications:

Berry, M. V. *See* **Richens, P. J., (82k:58050)**
Devaney, Robert L. Triple collision in the planar isosceles three-body problem. **(82m:58048)**
Losco, L. (*with* Marchal, C.) Sur une nouvelle propriété des équations linéarisées de la collision triple du problème des 3 corps. (English summary) [A new property of variational equations of the triple collision in the 3-body problem] **(82m:70005)**
Marchal, C. *See* **Losco, L., (82m:70005)**
Richens, P. J. (*with* Berry, M. V.) Pseudointegrable systems in classical and quantum mechanics. **(82k:58050)**

70F99 None of the above, but in this section

Andrews, M. The evolution of a cluster of particles and the invariants of a time-dependent oscillator. **82h:70016**
Bekov, A. A. On the stability of nonstationary circular orbits in a resisting medium. (Russian. English summary) **82g:70030**
Bel, Luis (*with* Martin, Jèsus) Predictive relativistic mechanics of systems of N particles with spin. **82k:70012a**
(*with* Martin, Jèsus) Predictive relativistic mechanics of systems of N particles with spin. II. The electromagnetic interaction. **82k:70012b**
Bollè, D. (*with* D'Hondt, J.) On the Hilbert-space approach to classical time delay. **82j:70012**
Bolotin, S. V. (*with* Kozlov, V. V.) Libration in systems with many degrees of freedom. **82g:70031**
D'Hondt, J. *See* **Bollé, D., 82j:70012**
Fusco, Giorgio General determination of the M-independent positional functions. (Italian. English summary) **82d:70028**
Gomis, J. (*with* Lobo, J. A.; Pons, J. M.) A singular Lagrangian model for two interacting relativistic particles. (French summary) **82i:70014**
González-Gascón, F. Symmetries and differential equations. III. The inverse problem. **82c:70019b**
Symmetries of differential equations. II. **82c:70019a**
King, Michael J. (*with* Rohrlich, Fritz) Relativistic Hamiltonian dynamics. II. Momentum-dependent interactions, confinement and quantization. **82d:70029**
Kozlov, V. V. *See* **Bolotin, S. V., 82g:70031**
Li, Am Gil Theory of operator formalism for classical many-body problems. I. (Korean. English summary) **82d:70030**
Ljubušin, E. A. On instability of equilibrium when the force function is not a maximum. **82f:70007**
Lobo, J. A. *See* **Gomis, J.; et al., 82i:70014**
Martin, Jésus *See* **Bel, Luis, 82k:70012a** *and* **82k:70012b**
Pons, J. M. *See* **Gomis, J.; et al., 82i:70014**
Ray, John R. Nonlinear superposition law for generalized Ermakov systems. **82d:70031**

Rohrlich, Fritz *See* **King, Michael J., 82d:70029**
Salas, A. (*with* Sánchez-Ron, J. M.) Fokker-type dynamics with three-body correlations. (Italian and Russian summaries) **82i:70015**
Sánchez-Ron, J. M. *See* **Salas, A., 82i:70015**
Terry, P. W. The collision operator and long-time behavior of a perturbed two-body problem. **82c:70020**

secondary classifications:

Barancev, R. G. (*with* Semenov, S. K.) Classical scattering on a lattice of unbound atoms with an arbitrary boundary. (Russian. English summary) **(82d:81143)**
Brito, L. P. (*with* Sousa, C. A.) Classical analogy of the concept of collective variables. **(82j:70015)**
Bulgadaev, S. A. Two-dimensional integrable field theories connected with simple Lie algebras. **(82i:58033)**
Debesa, Jesús S. (*with* Lallena, A.) On the integrability of nonlinear discrete systems. **(82g:58038)**
Eckmann, Jean-Pierre Roads to turbulence in dissipative dynamical systems. **(82j:58079)**
Fusco, Giorgio Motion of a particle on the plane surface of a solid: the linked-element scheme as a limit of a family of free schemes. (Italian) **(82j:70001)**
Gaida, R. P. (*with* Ključkovskiĭ, Ju. B.; Tretjak, V. I.) Lagrangian classical relativistic mechanics. Particle systems with direct interaction. I. (Russian. English summary) **(82f:83003a)**
(*with* Ključkovskiĭ, Ju. B.; Tretjak, V. I.) Lagrangian classical relativistic mechanics. Particle systems with direct interaction. II. (Russian. English summary) **(82f:83003b)**
Gulshani, P. Lie algebra projectors and the kinematics of collective motions. **(82j:81060)**
Keane, Michael S. Geodätische Strömungen. **(82h:58068)**
Ključkovskiĭ, Ju. B. *See* **Gaida, R. P.; et al., (82f:83003a)** *and* **(82f:83003b)**
Kostant, Bertram The solution to a generalized Toda lattice and representation theory. **(82f:58045)**
Krichever, I. M. On the rational solutions of the Zaharov-Šabat equations and completely integrable systems of N particles on the line. (Russian. English summary) **(82i:35155)**
Lallena, A. *See* **Debesa, Jesús S., (82g:58038)**
Schonfeld, Jonathan F. Dynamical symmetry and magnetic charge. **(82a:81018)**
Semenov, S. K. *See* **Barancev, R. G., (82d:81143)**
Sousa, C. A. *See* **Brito, L. P., (82j:70015)**
Toda, Morikazu ★Nonlinear lattice dynamics. (Japanese) **(82k:58052a)**
★Theory of nonlinear lattices. **(82k:58052b)**
Tretjak, V. I. *See* **Gaida, R. P.; et al., (82f:83003a)** *and* **(82f:83003b)**

70Gxx General representations of dynamical systems [See also 58F05.]

70G05 Riemannian geometry, tensorial methods [See also 53A45, 53A50, 53B20.]

Galiullin, A. S. Construction of a force field along a given family of trajectories. (Russian) **82i:70016**
Grauel, A. A note on the Liouville equation. **82h:70017**
Tatarinov, Ja. V. Geometric formalism of classical dynamics. Natural integrals and reduction. (Russian. French summary) **82a:70012**
van Velsen, J. F. C. The average Riemann curvature of conservative systems in classical mechanics. **82g:70032**

secondary classifications:

Hennig, J. D. Jet bundles and Weyl geometry. **(82g:83021)**
Sumbatov, A. S. Solution of one of Birkhoff's problems. **(82i:58031)**
Tatarinov, Ja. V. Deformations of the manifold of positions, and quadratic integrals of a natural system in classical dynamics. (Russian) **(82f:70002)**
van Velsen, J. F. C. On the Riemann curvature of conservative systems in classical mechanics. **(82g:58072)**

70G10 Generalized coordinates

Sumbatov, A. S. On the problem of determining the existence of ignorable coordinates in conservative dynamic systems. **82g:70033**

secondary classifications:

Duistermaat, J. J. On global action-angle coordinates. **(82d:58029)**

70G15 Space of events

70G20 Impulse-energy space

secondary classifications:

Gerdžikov, V. S. (*with* Hristov, E. H.) On evolution equations solvable by the inverse scattering method. II. Hamiltonian structure and Bäcklund transformations. (Russian. English summary) **(82g:58041)**
Hristov, E. H. *See* **Gerdžikov, V. S., (82g:58041)**

70G25 Configuration space

Kolesnikov, N. N. *See* **Kozlov, V. V., 82g:70034**
Kozlov, V. V. (*with* Kolesnikov, N. N.) On theorems of dynamics. **82g:70034**
Prasad, Gunraj On the geometry of classical nonconservative dynamical system. **82h:70013**
Sławianowski, Jan J. Affine model of internal degrees of freedom in a non-Euclidean space. **82f:70008**

secondary classifications:

Masumoto, Naoya *See* **Sabata, Hideki, (82k:70018)**
Mečerjakov, M. V. A note on dynamical systems on semisimple Lie algebras. (Russian. English summary) **(82c:58029)**
Sabata, Hideki (*with* Masumoto, Naoya) Sur le crochet neuf dans mécanique nonlinéaire. (Japanese summary) **(82k:70018)**

70G30 State space

secondary classifications:

Satanin, A. M. Metastable states of a nonlinear vector field with values on a sphere. (Russian) **(82d:58030)**

70G35 Phase space

Moshinsky, M. (*with* Seligman, Thomas H.) On the structure of phase space. **82j:70013**
Seligman, Thomas H. *See* **Moshinsky, M., 82j:70013**
Snider, R. F. *See* **Turner, R. E., 82d:70032**
Tulczyjew, W. M. Gauge independent formulation of dynamics of charged extended objects. (French summary) **82c:70021**
Turner, R. E. (*with* Snider, R. F.) A phase space moment method for classical and quantal dynamics. (French summary) **82d:70032**

secondary classifications:

Chua, Leon O. Dynamic nonlinear networks: state-of-the-art. **(82j:94024)**
Kijowski, Jerzy A new symplectic structure of field theory. **(82d:81104)**
Kummer, M. On the construction of the reduced phase space of a Hamiltonian system with symmetry. **(82e:58041)**
Maksimov, Ju. M. (*with* Mednis, P. M.; Rasulkulov, M. S.) Time and phase means of dynamical systems. (Russian) **(82c:82015)**
Mednis, P. M. *See* **Maksimov, Ju. M.; et al., (82c:82015)**
Rasulkulov, M. S. *See* **Maksimov, Ju. M.; et al., (82c:82015)**
Taborda Duarte, J. *See* **Vilela Mendes, R., (82h:58016)**
Vilela Mendes, R. (*with* Taborda Duarte, J.) Decomposition of vector fields and mixed dynamics. **(82h:58016)**
Zakrzewski, Stanisław Finite systems of observables in quantum field theory. **(82j:81051)**

70G99 None of the above, but in this section

Aržanyh, I. S. On a reduction to the potential form of equations of motion of nonholonomic conservative systems. (Russian) **82g:70035**
Berger, Roland Géométrie algébrique de Poisson. (English summary) **82e:70014**
Iliev, Ilija P. Čaplygin's reducing multiplier. (Bulgarian. Russian and English summaries) **82h:70018**
Rajski, Czesław Variational principle for dissipative dynamic systems. I. Theoretical background. (Russian summary) **82k:70014a**
Variational principle for dissipative dynamic systems. II. Examples of application. (Russian summary) **82k:70014b**

secondary classifications:

González-Gascón, F. (*with* Rodríguez-Camino, E.) Differential forms and invariant sets of dynamical systems. **(82e:58040)**
(*with* Rodríguez-Camino, E.) On the first integrals of certain dynamical systems. **(82g:58079)**
Iranzo, V. (*with* Llosa, Josep; Marquès, F.; Molina, A.) An exactly solvable model in predictive relativistic mechanics. I. **(82m:83003)**
Ishikawa, Hirohisa Correspondence between geodesics in a tangent bundle and spinning particles. **(82a:83046)**
Llosa, Josep *See* **Iranzo, V.; et al., (82m:83003)**
Lutzky, M. Generalized Ray-Reid systems. **(82a:58047)**
Marmo, G. (*with* Saletan, E. J.; Simoni, A.; Zaccaria, F.) Liouville dynamics and Poisson brackets. **(82g:58031)**
Marquès, F. *See* **Iranzo, V.; et al., (82m:83003)**
McLaughlin, John B. The role of dissipation in a truncation of Hénon's map. **(82a:58040)**
Molina, A. *See* **Iranzo, V.; et al., (82m:83003)**
Rodríguez-Camino, E. *See* **González-Gascón, F., (82e:58040)** *and* **(82g:58079)**
Saletan, E. J. *See* **Marmo, G.; et al., (82g:58031)**
Schoenberg, I. J. The Landau problem for motions on curves and time-optimal control problems. **(82i:70035)**
Simoni, A. *See* **Marmo, G.; et al., (82g:58031)**
Tulczyjew, W. M. Homogeneous symplectic formulation of field dynamics and the Poincaré-Cartan form. **(82g:58034)**
Zaccaria, F. *See* **Marmo, G.; et al., (82g:58031)**

70Hxx Hamiltonian and Lagrangian mechanics [See also 58F05.]

Aldaya, Víctor (*with* de Azcárraga, José A.) Geometric formulation of classical mechanics and field theory. **82i:70017**
de Azcárraga, José A. *See* **Aldaya, Víctor, 82i:70017**

secondary classifications:

Pöschel, Jürgen ★Über invariante Tori in differenzierbaren Hamiltonschen Systemen. (German) [On invariant tori in differentiable Hamiltonian systems] **(82e:58023)**
Weinstein, Alan D. ★Lectures on symplectic manifolds. **(82h:58039)**

70H05 Hamilton's equations

Cawley, Robert Gauge invariance and the Helmholtz conditions. **82h:70019**
Contopoulos, G. Do successive bifurcations in Hamiltonian systems have the same universal ratio? **82j:70014**
Korsch, H. J. Dynamical invariants and time-dependent harmonic systems. **82g:70036**
Lusanna, L. Gauge fixings, evolution generators and world-line conditions in relativistic classical mechanics with constraints. (Italian and Russian summaries) **82m:70018**
Sazdjian, H. Separable interactions in classical relativistic Hamiltonian mechanics. **82m:70019**
Schrüpel, H.-D. Analytische Berechnung nichtlinearer Eigenschwingungen durch kanonische Transformation. (English and Russian summaries) **82m:70020**
Wojciechowski, S. The SU(2) symmetry group generators for the classical Calogero system. **82g:70037**

secondary classifications:

Ambrosetti, Antonio (*with* Mancini, Giovanni) Solutions of minimal period for a class of convex Hamiltonian systems. **(82j:58043)**
Brumer, Paul *See* **Hamilton, Ian, (82d:58035)**
Fam Fu Attainability of central exponents of a linear Hamiltonian system. I. (Russian) **(82f:34055a)**
Attainability of central exponents of a linear Hamiltonian system. II. (Russian) **(82f:34055b)**
Hamilton, Ian (*with* Brumer, Paul) Regular-to-irregular transition in conservative Hamiltonian systems: critical energies and local entropies. **(82d:58035)**
Irac-Astaud, M. Quantum Hamiltonian formalism with constraints. **(82c:81060)**
Kalnins, E. G. (*with* Miller, Willard, Jr.) Killing tensors and nonorthogonal variable separation for Hamilton-Jacobi equations. **(82j:53033)**
Kobussen, J. A. Transformation theory for first-order dynamical systems. **(82k:58084)**
Mancini, Giovanni *See* **Ambrosetti, Antonio, (82j:58043)**
Miller, Willard, Jr. *See* **Kalnins, E. G., (82j:53033)**
Olver, Peter J. On the Hamiltonian structure of evolution equations. **(82f:58042)**
Reĭman, A. G. Integrable Hamiltonian systems connected with graded Lie algebras. (Russian) **(82j:58048)**
Sazdjian, H. Relativistic and separable classical Hamiltonian particle dynamics. **(82m:70009)**
Thimm, Anton ★Über die integrabilität geodätischer Flüsse auf homogenen Räumen. (German) [On the integrability of geodesic flows on homogeneous spaces] **(82m:58033)**

70H10 Liouville's theorem

secondary classifications:

Cawley, Robert Generalized Hamiltonian theory: central coordinates. **(82c:58020)**

70H15 Canonical transformations

Amiet, J.-P. (*with* Huguenin, P.) Generating functions of canonical maps. **82g:70038**
Baumgarte, J. Eine Lie-Algebra, die Delaunay-similar-Elemente in der exzentrischen Anomalie erzeugt. (English summary) **82k:70020**
Deprit, André A note concerning the TR-transformation. **82d:70033**
Huguenin, P. *See* **Amiet, J.-P., 82g:70038**
Keis, I. Dynamics of autonomous systems reducible to canonical form by a time transformation. (Russian) **82d:70034**
Nerenberg, M. A. Invariance proofs for canonical transformations. **82c:70022**
Pascal, Madeleine A note on the correspondence between Mathieu's transformations and redundant variables in Lagrangian mechanics. (French summary) **82g:70039**
Schrüpel, H.-D. Kanonische Transformationen, Lagrangesche und Poissonsche Klammern. (English and Russian summaries) **82k:70021**
Sinha, S. R. P. A note on contact transformation. **82g:70040**

secondary classifications:

Kálnay, Andrés J. On fundamental realizations of Lie-admissible algebras: flexibility, centers, and nuclei. **(82k:17006)**
Kupershmidt, Boris On the nature of the Gardner transformation. **(82f:58090)**
Lidov, M. L. Generating functions of symplectic mappings. (Russian) **(82e:58042)**
Mimura, Fumitake (*with* Nôno, Takayuki) Generalized contact transformations. **(82i:35010)**
Nôno, Takayuki *See* **Mimura, Fumitake, (82i:35010)**
Ratiu, Tudor Involution theorems. **(82f:58047)**
Sasaki, Ryu Canonical structure of Bäcklund transformations. **(82i:35159)**

70H20 Hamilton-Jacobi equations

Benenti, Sergio Separability structures on Riemannian manifolds. **82e:70015**
Cantrijn, Frans Dynamical systems derivable from a variational principle and the Hamilton-Jacobi theory. **82h:70006**

secondary classifications:

Amiet, J.-P. (*with* Huguenin, P.) Generating functions of canonical maps. **(82g:70038)**
Benenti, Sergio (*with* Tulczyjew, W. M.) The geometrical meaning and globalization of the Hamilton-Jacobi method. **(82f:58040)**
Buch, Lawrence H. *See* **Denman, Harry H., (82g:49022)**
Denman, Harry H. (*with* Buch, Lawrence H.) Variational treatment for equations of the Langmuir type. **(82g:49022)**
Huguenin, P. *See* **Amiet, J.-P., (82g:70038)**
Leaci, Antonio (*with* Vergara Caffarelli, Giorgio) Generalized variational solutions of the Cauchy problem for Hamilton-Jacobi equations. **(82d:49022)**
Lembra, Ju. Ja. Potentials allowing coincidence of the solutions of the Schrödinger and Hamilton-Jacobi equations. (Russian. Estonian and English summaries) **(82d:81021)**
Tulczyjew, W. M. *See* **Benenti, Sergio, (82f:58040)**
Vergara Caffarelli, Giorgio *See* **Leaci, Antonio, (82d:49022)**
Vorob'ev, E. M. Reduction of differential equations with symmetries. (Russian) **(82d:58066)**

70H25 Hamilton's principle

Hitzl, Donald L. Implementing Hamilton's law of varying action with shifted Legendre polynomials. **82a:70015**
Rumjancev, V. V. On Hamilton's principle for nonholonomic systems. **82k:70015**

secondary classifications:

Cawley, Robert Gauge invariance and the Helmholtz conditions. **(82h:70019)**

70H30 Other variational principles

D'Ambrosio, Ubiratan (*with* Mangeron, Dumitru Ion; Irimiciuc, N.; Maravall Casesnoves, Dario) New trends in mechanics. I. Generalized differential variational principles in rational mechanics. (Chinese. English summary) **82a:70016**
Irimiciuc, N. *See* **D'Ambrosio, Ubiratan; et al., 82a:70016**
Maeda, Shigeru Extension of discrete Noether theorem. **82g:70041**
Mangeron, Dumitru Ion *See* **D'Ambrosio, Ubiratan; et al., 82a:70016**
Maravall Casesnoves, Dario *See* **D'Ambrosio, Ubiratan; et al., 82a:70016**

secondary classifications:

Aldaya, Victor (*with* de Azcárraga, José A.) Condition for the local formulation of a manifestly covariant theory from a variational principle. (*See* **82h:81004**)
de Azcárraga, José A. *See* **Aldaya, Victor,** (*See* **82h:81004**)
Baumgarte, J. Verallgemeinerung des Jacobischen Prinzips der kleinsten Wirkung auf den allgemeinen nichtkonservativen Fall. **(82e:49064)**
Hennawi, A. On the variational equations associated with a Lagrangian. **(82h:49038)**
Jackiw, R. (*with* Manton, N. S.) Symmetries and conservation laws in gauge theories. **(82d:81103)**
Ljubušin, E. A. On instability of equilibrium when the force function is not a maximum. **(82f:70007)**
Manton, N. S. *See* **Jackiw, R., (82d:81103)**
Maravall Casesnoves, Dario Non-Riemannian spaces and the use of the methods of classical mechanics in the theory of relativity. (Spanish. English summary) **(82e:83006)**
Mimura, Fumitake *See* **Nôno, Takayuki, (82k:58042)**
Nôno, Takayuki (*with* Mimura, Fumitake) Dynamical symmetries. VI. **(82k:58042)**
Rajski, Czesław Variational principle for dissipative dynamic systems. I. Theoretical background. (Russian summary) **(82k:70014a)**
Rumjancev, V. V. On the Lagrange and Jacobi principles for nonholonomic systems. **(82m:49061)**
Toland, J. F. A duality principle for nonconvex optimisation and the calculus of variations. **(82h:49031)**
Weber, René Willi Eine alternative Herleitung der Euler-Hamiltonschen Gleichungen der Mechanik. (English summary) **(82f:58043)**
Yasuda, Hiroshi On Finsler geometry and analytical dynamics. **(82f:53044)**

70H35 Lagrange's equation of motion

Harleston, H. *See* **Hojman, Sergio, 82i:70019**
Heinz, C. Neue Aspekte der Feldtheorie. (English summary) [New aspects of field theory] **82i:70018**
Hojman, Sergio (*with* Harleston, H.) Equivalent Lagrangians: multidimensional case. **82i:70019**
Kalinin, V. S. Inversion of Lagrange's theorem on the stability of equilibrium of a conservative system. (Russian) **82c:70023**

secondary classifications:

Crampin, Michael On the differential geometry of the Euler-Lagrange equations, and the inverse problem of Lagrangian dynamics. **(82m:58029)**
Dutt, Ranabir Role of a linear Lagrangian in a variational method for nonlinear periodic problems. **(82f:49051)**
Gaida, R. P. (*with* Ključkovskiĭ, Ju. B.; Tretjak, V. I.) Lagrangian classical relativistic mechanics. Particle systems with direct interaction. I. (Russian. English summary) **(82f:83003a)**
(*with* Ključkovskiĭ, Ju. B.; Tretjak, V. I.) Lagrangian classical relativistic mechanics. Particle systems with direct interaction. II. (Russian. English summary) **(82f:83003b)**
González-Gascón, F. On a certain conjecture by Lutzky. **(82h:58036)**
Ključkovskiĭ, Ju. B. *See* **Gaida, R. P.; et al., (82f:83003a)** *and* **(82f:83003b)**
Ray, John R. (*with* Reid, James L.) Ermakov systems, velocity-dependent potentials, and nonlinear superposition. **(82c:70029)**
Reid, James L. *See* **Ray, John R., (82c:70029)**
Takens, Floris Motion under the influence of a strong constraining force. **(82g:34060)**
Tretjak, V. I. *See* **Gaida, R. P.; et al., (82f:83003a)** *and* **(82f:83003b)**

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Abarbanel, Henry D. I. Classical Hamiltonian perturbation theory without secular terms or small denominators. **82h:70022**
Bahar, Leon Y. (*with* Kwatny, Harry G.) Generalized Lagrangian and conservation law for the damped harmonic oscillator. **82k:70016**
Boisseau, B. Gauge theory in Hamiltonian classical mechanics: the long range fields. **82m:70021**

Bolotin, S. V. (*with* Kozlov, V. V.) Asymptotic solutions of the equations of dynamics. (Russian. English summary) **82c:70024**
Brito, L. P. (*with* Sousa, C. A.) Classical analogy of the concept of collective variables. **82j:70015**
Cantrijn, Frans (*with* Sarlet, Willy) Note on symmetries and invariants for second-order ordinary differential equations. **82f:70009**
See also **Sarlet, Willy, 82e:70018**
Clément, Gérard Classical mechanics of autocomposite particles. **82e:70016**
Donev, S. G. On the equivariance of the Noether current for the classical Klein-Gordon equation. **82e:70017**
Greene, John M. (*with* Percival, Ian C.) Hamiltonian maps in the complex plane. **82m:70022**
Hojman, Sergio Construction of genotopic transformations for first order systems of differential equations. **82m:70023**
Kobussen, J. A. On a systematic search for integrals of the motion. **82d:70035**
The virial theorem in four branches of physics and its derivation. **82d:70036**
Kondo, Kazuo An essay on the constitutional construction of external forces by higher order osculations. **82k:70017a**
An essay on the constitutional construction of external forces by higher order osculations. II. **82k:70017b**
Kozlov, V. V. *See* **Bolotin, S. V., 82c:70024**
Kwatny, Harry G. *See* **Bahar, Leon Y., 82k:70016**
Leach, P. G. L. An exact invariant for a class of time-dependent anharmonic oscillators with cubic anharmonicity. **82g:70042**
Lutzky, M. Noether's theorem and the time-dependent harmonic oscillator. **82a:70017**
Mariwalla, K. H. A complete set of integrals in nonrelativistic mechanics. **82d:70037**
Masumoto, Naoya *See* **Sabata, Hideki, 82k:70018**
Nakano, Yoshimasa Hamiltonian formalism for systems including Grassmann numbers and canonical quantization by Feynman path-integral with constraints. **82d:70038**
Percival, Ian C. *See* **Greene, John M., 82m:70022**
Ray, John R. (*with* Reid, James L.) Noether's theorem and Ermakov systems for nonlinear equations of motion. **82c:70025**
Invariants for nonlinear equations of motion. **82g:70043**
Reid, James L. *See* **Ray, John R., 82c:70025**
Sabata, Hideki (*with* Masumoto, Naoya) Sur le crochet neuf dans mécanique nonlinéaire. (Japanese summary) **82k:70018**
Sarlet, Willy (*with* Cantrijn, Frans) Higher-order Noether symmetries and constants of the motion. **82e:70018**
Symmetries, first integrals and the inverse problem of Lagrangian mechanics. **82h:70023**
See also **Cantrijn, Frans, 82f:70009**
Śniatycki, Jędrzej On particles with gauge degrees of freedom. **82k:70019**
Sousa, C. A. *See* **Brito, L. P., 82j:70015**

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Abarbanel, Henry D. I. (*with* Crawford, John David) Diffusion in very chaotic Hamiltonian systems. **82c:58019**
Ahmed, Shafique Equilibrium configurations of some one-dimensional systems. **82m:70016**
Ali, M. K. (*with* Somorjai, R. L.) On the integrability of three equal masses interacting through Morse-type potentials. **82e:58037**
Arms, Judith M. (*with* Marsden, Jerrold E.; Moncrief, Vincent) Symmetry and bifurcations of momentum mappings. **82m:58028**
Atanackovič, T. M. On conservation laws for continuous bodies. (German summary) **82b:73001**
Bălan, George C. *See* **Matulea, Iordan C.; et al., 82a:73027a**
Balitinov, M. A. On instability of the position of equilibrium of a Hamiltonian system. **82i:34053**
Bel, Luis (*with* Martín, Jésus) Predictive relativistic mechanics of systems of N particles with spin. **82k:70012a**
(*with* Martín, Jésus) Predictive relativistic mechanics of systems of N particles with spin. II. The electromagnetic interaction. **82k:70012b**
Benettin, Giancarlo (*with* Galgani, Luigi; Giorgilli, A.) Further results on universal properties in conservative dynamical systems. **82f:58067**
Bollé, D. (*with* Osborn, T. A.) Sum rules in classical scattering. **82i:70002**
Bondarčuk, V. S. A periodic problem of the calculus of variations and deformation of Hamiltonian systems. (Russian) **82j:58044**
Brumer, Paul *See* **Jaffé, Charles, 82b:81145**
Crawford, John David *See* **Abarbanel, Henry D. I., 82c:58019**
Dodonov, V. V. (*with* Man'ko, V. I.; Skaržinskiĭ, V. D.) Nonuniqueness of the Yang-Feldman quantization procedure for the classical equations of motion. **82c:81059**
Engel, W. G. Lagrange-Hamilton's formalism and the chemical reaction. II. The differential equations of chemical kinetics. Chemical Lagrangian functions and inertias. Chemical inertia and chemical affinity. Chemical resistance. Catalysis. (Portuguese summary) **82h:80008**
Erig, J. *See* **Steeb, W.-H.; et al., 82g:58033**
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Giorgilli, A. *See* **Benettin, Giancarlo; et al., 82f:58067**
Gončarov, V. P. Wave interactions in the ocean-atmosphere systems within the framework of the Hamiltonian formalism. **82i:86010**
Gutkin, D. Espace des jets et calcul des variations en dimension infinie. **82f:58039**
Heinz, C. Neue Aspekte der Feldtheorie. (English summary) [New aspects of field theory] **82i:70018**
Iliev, Ilija P. The relation between equivalent systems and application of the Hamilton-Jacobi theorem to nonholonomic systems. (Bulgarian. Russian and English summaries) **82k:70011**
Iwai, Toshihiro Symmetry of vector wave equations dealt with in Hamiltonian formalism. **82i:58030**
Jaffé, Charles (*with* Brumer, Paul) Local and normal modes: a classical perspective. **82b:81145**
Kastrup, H. A. (*with* Rinke, M.) Hamilton-Jacobi theories for strings. **82m:81052**
Kosloff, Ronnie (*with* Rice, Stuart A.) Dynamical correlations and chaos in classical Hamiltonian systems. **82c:58038**
Kožuhovskiĭ, N. N. *See* **Martinjuk, A. A., 82j:34051**
Leipholz, Horst Stability analysis of nonconservative systems via energy considerations. **82c:70027**
Lutzky, M. Origin of non-Noether invariants. **82c:49021**
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Martín, Jésus *See* **Bel, Luis, 82k:70012a** *and* **82k:70012b**
Martinjuk, A. A. (*with* Kožuhovskiĭ, N. N.) Stability of the equilibrium position of Hamiltonian systems. **82j:34051**
Matulea, Iordan C. (*with* Bălan, George C.; Şorea, N. I.) Un modèle mathématique de la mécanique des fils immergés. (Romanian and English summaries) **82a:73027a**
Une méthode d'élément fini dans le modelage de la dynamique des fils immergés. (Romanian and English summaries) **82a:73027b**
McKean, H. P. Theta functions, solitons, and singular curves. **82f:14028**
Mikami, Kentaro The existence of a coadjoint equivariant momentum mapping for a semidirect product. **82j:58047**
Moncrief, Vincent *See* **Arms, Judith M.; et al., 82m:58028**
Morrison, Philip J. The Maxwell-Vlasov equations as a continuous Hamiltonian system. **82e:76082**
Moser, Jürgen K. Geometry of quadrics and spectral theory. **82j:58064**
Neroslavskiĭ, O. M. (*with* Vlassov, A. T.) Sur les déformations de l'algèbre des fonctions d'une variété symplectique. (English summary) **82c:58026**
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Osborn, T. A. *See* **Bollé, D., 82i:70002**
Pogrebkov, A. K. Complete integrability of dynamical systems generated by singular solutions of the Liouville equations. (Russian. English summary) **82k:58048**
Polak, L. S. (*with* Vizgin, V. P.) Noether's theorem in the history of physics. (Russian. English summary) **82c:70001**
Pommaret, Jean-François Théorie de Galois des systèmes dynamiques. (English summary) **82g:12028**
Rice, Stuart A. *See* **Kosloff, Ronnie, 82c:58038**
Rinke, M. *See* **Kastrup, H. A., 82m:81052**
Shadwick, William F. The Hamilton Cartan formalism for rth-order Lagrangians and the integrability of the KdV and modified KdV equations. **82k:58051**
Skaržinskiĭ, V. D. *See* **Dodonov, V. V.; et al., 82c:81059**
Somorjai, R. L. *See* **Ali, M. K., 82e:58037**
Şorea, N. I. *See* **Matulea, Iordan C.; et al., 82a:73027a**
Steeb, W.-H. (*with* Erig, J.; Oevel, W.) A note on the nonrelativistic and relativistic classical mechanics and the constants of the motion. **82g:58033**
Strižak, T. G. On the stability of the solutions of some Hamiltonian systems. (Russian. Kazakh summary) **82j:58049**
Vizgin, V. P. *See* **Polak, L. S., 82c:70001**
Vlassov, A. T. *See* **Neroslavskiĭ, O. M., 82c:58026**
Wollenberg, L. S. Characterisation of homogeneous quadratic invariants for one-dimensional homogeneous quadratic Hamiltonians. **82k:81032**
Zhu, Dong Pei Noether symmetry of the single-particle system. **82i:70003**

70Jxx Linear vibration theory

Müller, Peter C. (*with* Schiehlen, Werner O.) ★Forced linear vibrations. **82c:70026**
Schiehlen, Werner O. *See* **Müller, Peter C., 82c:70026**

70J05 Finite degree of freedom systems

Ahn, Hyun J. Vibrations of a pendulum consisting of a bob suspended from a wire: the method of integral equations. **82d:70039**

70J10 Normal modes of vibrations

Urusov, I. D. Stability of periodic solutions during parametric excitation of oscillations in a multimass rotor. (Russian) **82g:70044**
Yanabe, Shigeo Nonstationary vibration during acceleration through two critical speeds (without damping). **82e:70019**

70J15 Conservative systems

secondary classifications:

Sosnickiĭ, S. P. On the stability of conservative systems. (Russian) **82m:70024**

70J20 Nonconservative systems

Leipholz, Horst Stability analysis of nonconservative systems via energy considerations. **82c:70027**
Nicholson, David W. Bounds on the forced response of damped linear systems. **82b:70007**
Schneider, J. Der Satz von Gerschgorin für gedämpfte Schwingungen. **82a:70018**

70J25 Stability

Kazantzis, P. G. Numerical investigation of symmetric and asymmetric periodic oscillations. **82i:70020**
Sosnickiĭ, S. P. On the stability of conservative systems. (Russian) **82m:70024**

secondary classifications:

Barnes, Earl R. Stability conditions for linear Hamiltonian systems with periodic coefficients. **(82e:34056)**
Koval'skiĭ, I. P. (*with* Kudin, G. I.) On stability of certain nonstationary systems. **(82g:70054)**
Kudin, G. I. *See* **Koval'skiĭ, I. P., (82g:70054)**
Zhu, Ru Zeng Linear stability theory of transverse motion of charged particles in a strong-focusing accelerator. (Chinese. English summary) **(82g:78012)**

70J99 None of the above, but in this section

Graffi, Sandro (*with* Levoni, Sergio) Quasistationary vibrations of an inhomogeneous string. (Italian) **82c:70028**
Levoni, Sergio *See* **Graffi, Sandro, 82c:70028**
Mitropol'skiĭ, Ju. A. (*with* Švec, A. Ju.) The effect of lag on the stability of a pendulum with a vibrating point of suspension. (Russian) **82k:70020a**
(*with* Švec, A. Ju.) Oscillations of a pendulum with a vibrating point of suspension in the presence of lag. (Russian) **82k:70020b**
Natke, H. G. Angenäherte Fehlerermittlung für Modalsynthese-Ergebnisse innerhalb der Systemanalyse und Systemidentifikation. (English and Russian summaries) **82f:70010**
Ren, Zeng Xun Dynamical response of elastic structures—on quadric eigenvalue problems and engineering solution for dynamical response problems of elastic structures. (Chinese. English summary) **82h:70024**
Švec, A. Ju. *See* **Mitropol'skiĭ, Ju. A., 82k:70020**
Tudosie, Constantin On a certain vibrational problem. (Romanian summary) **82g:70045**
Udwadia, F. E. Controllability, observability and identification of classical linear dynamic systems. **82i:70021**

secondary classifications:

Hasegawa, Takuichi The equation of a vibrating general membrane. **(82e:53010)**
Truckenbrodt, A. Zur Vernachlässigung höherfrequenter Schwingungsformen bei mechanischen Systemen. [On neglecting high frequency oscillation modes in mechanical systems] **(82k:73049)**

70Kxx Nonlinear motions [See also 34Cxx, 58Fxx.]

Kunicyn, A. L. (*with* Markeev, A. P.) Stability in resonance cases. (Russian) **82h:70008**
Markeev, A. P. *See* **Kunicyn, A. L., 82h:70008**

secondary classifications:

Landa, P. S. ★Автоколебания в системах с конечным числом степеней свободы. (Russian) [Auto-oscillation in systems with a finite number of degrees of freedom] **(82f:70001)**
Levi, Mark Qualitative analysis of the periodically forced relaxation oscillations. **(82g:58052)**
Chaotic phenomena in deterministic systems and dynamical system theory ★Chaotic phenomena in deterministic systems and dynamical system theory. (Japanese) **(82h:58015)**
Symposium:
Chaotic Phenomena in Deterministic Systems and Dynamical System Theory
★Chaotic phenomena in deterministic systems and dynamical system theory. (Japanese) **(82h:58015)**

70K05 Phase plane analysis

Klepp, Horst J. Über die Stabilität der stationären Punkte eines Verbandes mit unstetigen Ableitungen der potentiellen Energie. (English summary) **82a:70019**

secondary classifications:

Barbanti, Luciano Liénard equations and control. **(82c:49028)**
Benettin, Giancarlo (*with* Galgani, Luigi) Ljapunov characteristic exponents and stochasticity. **(82b:58044)**
Benoit, Eric Tunnels et entonnoirs. (English summary) **(82g:58074)**
Contopoulos, G. (*with* Zikides, M.) Periodic orbits and ergodic components of a resonant dynamical system. **(82d:58052)**
Doveil, F. (*with* Escande, D. F.) Destabilization of an enumerable set of cycles in a Hamiltonian system. **(82i:34046)**
Escande, D. F. *See* **Doveil, F., (82i:34046)**
Fedorov, E. L. *See* **Morozov, A. D., (82k:58075)**
Galgani, Luigi *See* **Benettin, Giancarlo, (82b:58044)**
González-Gascón, F. Limit cycles are not incompatible with conservative systems. **(82b:58035)**
Guckenheimer, John Dynamics of the van der Pol equation. **(82d:58036)**
Hartley, John G. (*with* Ray, John R.) Ermakov systems and quantum-mechanical superposition laws. **(82m:81011)**
Holmes, Philip J. (*with* Rand, David A.) Phase portraits and bifurcations of the nonlinear oscillator: $\ddot{x}+(\alpha+\gamma x^2)\dot{x}+\beta x+\delta x^3=0$. (French summary) **(82e:58073)**
Hsu, Chieh Su Theory of index and a generalized Nyquist criterion. (French summary) **(82f:58052)**
Levi, Mark Periodically forced relaxation oscillations. **(82c:58034)**
Martin, Paul C. *See* **Shraiman, Boris; et al., (82g:70051)**
Morozov, A. D. (*with* Fedorov, E. L.) On auto-oscillations in two-dimensional near-Hamiltonian dynamic systems. **(82k:58075)**
Rand, David A. *See* **Holmes, Philip J., (82e:58073)**
Ray, John R. Solitary waves in a generalized time-dependent sine-Gordon equation. **(82i:35158)**
See also **Hartley, John G., (82m:81011)**
Shraiman, Boris (*with* Wayne, C. Eugene; Martin, Paul C.) Scaling theory for noisy period-doubling transitions to chaos. **(82g:70051)**
Simó, Carlos Some experiments with planar maps: strange attractors, stable zones and the role of invariant manifolds. **(82g:58048)**
Tarbell, J. M. A two-timing formalism for autonomous oscillations. (French and German summaries) **(82h:34038)**
Wayne, C. Eugene *See* **Shraiman, Boris; et al., (82g:70051)**
Zikides, M. *See* **Contopoulos, G., (82d:58052)**

70K10 Limit cycles

Leonov, G. A. On Barbašin's problem. (Russian. English summary) **82g:70046**

secondary classifications:

Burkina, L. I. (*with* Leonov, G. A.) Frequency conditions for the existence of limit cycles of the first kind in phase systems. (Russian) **(82d:34048)**
Busse, H.-G. (*with* Havsteen, B. H.) Nonlinear oscillations in chemical networks as symmetries of transformation groups. **(82e:58082)**
Butenina, N. N. Multiple merging of separatrices and limit cycles. (Russian) **(82f:34030)**
Ermentrout, G. Bard $n:m$ phase-locking of weakly coupled oscillators. **(82j:34037)**
Havsteen, B. H. *See* **Busse, H.-G., (82e:58082)**
Leonov, G. A. *See* **Burkina, L. I., (82d:34048)**
Sanders, Jan A. Asymptotic approximations on arbitrary time scales for systems with a limit-cycle. (*See* **82k:70002b**)

70K15 Ljapunov theorems

secondary classifications:

Martinjuk, A. A. *See* **Mitropol'skiĭ, Ju. A., (82d:34055)**
Mitropol'skiĭ, Ju. A. (*with* Martinjuk, A. A.) Development of the Lyapunov functions method in nonlinear mechanics. (French and German summaries) **(82d:34055)**
Skowrónski, Janisław M. ★Liapunov dynamics of lumped systems. **(82k:58061)**
Yamada, Haruki Remarks on the existence and the nonexistence of some kind of periodic orbits for Hamiltonian systems. **(82m:58044)**

70K20 Stability

Arnol'd, V. I. Steady oscillations with potential energy harmonic in space and periodic in time. **82h:70025**
Grumondz, V. T. Oscillations of mechanical systems that do not become linear when the parameter vanishes. **82k:70021**
Hagedorn, P. (*with* Teschner, W.) An instability theorem for steady motions in free and restrained dynamical systems. **82j:70016**
Huseyin, K. (*with* Mandadi, V.) On the instability of multiple-parameter systems. (*See* **82d:00008**)
Kozlov, V. V. Periodic oscillations of a composite pendulum. **82f:70011**
Mandadi, V. *See* **Huseyin, K.,** (*See* **82d:00008**)
Nocilla, Silvio Vibrations and stability in nonlinear systems with one degree of freedom. (*See* **82c:76004**)
Šinkin, V. N. On the search for stable resonance modes by means of their extremal properties. (Russian) **82i:70022**
Teschner, W. *See* **Hagedorn, P., 82j:70016**
Thai, V. N. On stability of mechanical systems under the action of position forces. **82i:70023**
Žavnerčik, V. È. On the stability of autonomous systems in the presence of several resonances. **82h:70026**

secondary classifications:

Beleckiĭ, V. V. (*with* Kasatkin, G. V.) Extremal properties of resonance motions. (Russian) **(82e:34041)**
Blacher, S. (*with* Perdang, J.) Chaotic solar oscillations? **(82j:85002)**
Bountis, Tassos (*with* Helleman, Robert H. G.) On the stability of periodic orbits of two-dimensional mappings. **(82m:58035)**
Cao, Zhen Zhong On a necessary and sufficient condition for a motion $f(p,t)$ to be almost periodic, and a corollary. (Chinese. English summary) **(82g:34055)**
Churchill, Richard C. (*with* Rod, David L.; Thomas, Edward) Normal modes and stability for some classes of mechanical systems. (*See* **82k:58002**)
Grumondz, V. T. Investigation of oscillations in nonlinear mechanical systems of arbitrary order. **(82i:34038)**
Helleman, Robert H. G. *See* **Bountis, Tassos, (82m:58035)**
Herz, B. Zur Stabilisierung von Gleichungen der ersten Variation durch Prozeßrechner. (English and Russian summaries) **(82e:93084)**
Ignat'ev, A. O. Formal stability in a critical case of n pairs of purely imaginary roots. (Russian) **(82g:34070)**
Kaplan, B. Z. Analysis of a symmetrically stabilized three-dimensional oscillator and some implications. **(82h:58035)**
Kasatkin, G. V. *See* **Beleckiĭ, V. V., (82e:34041)**
Kožuhovskiĭ, N. N. *See* **Martinjuk, A. A., (82j:34051)**
Markeev, A. P. (*with* Sokol'skiĭ, A. G.) Method of constructing and investigating stability of periodic motions of autonomous Hamiltonian systems. **(82i:70031)**
Martinjuk, A. A. Method of integral inequalities in the theory of stability of motion. **(82d:34064)**
(*with* Kožuhovskiĭ, N. N.) Stability of the equilibrium position of Hamiltonian systems. **(82j:34051)**
Mitropol'skiĭ, Ju. A. (*with* Švec, A. Ju.) The effect of lag on the stability of a pendulum with a vibrating point of suspension. (Russian) **(82k:70020a)**
(*with* Švec, A. Ju.) Oscillations of a pendulum with a vibrating point of suspension in the presence of lag. (Russian) **(82k:70020b)**

Month, L. A. (*with* Rand, R. H.) An application of the Poincaré map to the stability of nonlinear normal modes. **(82e:34047)**
Paklina, E. P. (*with* Slitinskaja, S. K.) The origin of limit cycles in the Salzmann-Lorenz system. (Russian) **(82g:58068)**
Perdang, J. *See* **Blacher, S., (82j:85002)**
Rand, R. H. *See* **Month, L. A., (82e:34047)**
Rod, David L. *See* **Churchill, Richard C.; et al., (***See* **82k:58002)**
Rumjancev, V. V. Stability of rotation of a heavy gyrostat on a horizontal plane. **(82d:70008)**
Slitinskaja, S. K. *See* **Paklina, E. P., (82g:58068)**
Sokol'skiĭ, A. G. *See* **Markeev, A. P., (82i:70031)**
Švec, A. Ju. *See* **Mitropol'skiĭ, Ju. A., (82k:70020a)** *and* **(82k:70020b)**
Thomas, Edward *See* **Churchill, Richard C.; et al., (***See* **82k:58002)**
Tondl, A. The effect of spring nonlinearities in a self-excited system with a tuned absorber. (*See* **82k:70002b)**
Žavnerčik, V. È. On instability in the presence of several resonances. **(82m:34051)**

70K30 Nonlinear resonances

Augusteijn, Marijke F. (*with* Breitenberger, Ernst) Integration of near-resonant systems in slow-fluctuation approximation. **82e:70020a**
(*with* Breitenberger, Ernst) Erratum: "Integration of near-resonant systems in slow-fluctuation approximation". **82e:70020b**
Breitenberger, Ernst *See* **Augusteijn, Marijke F., 82e:70020**
Dai, De Cheng The influences of the structure of systems with several degrees of freedom on antiresonances. (Chinese. English summary) **82m:70025**
Holmes, Catherine A. (*with* Holmes, Philip J.) Second order averaging and bifurcations to subharmonics in Duffing's equation. **82k:70022**
Holmes, Philip J. *See* **Holmes, Catherine A., 82k:70022**
Kevorkian, Jerry Passage through resonance. **82a:70020**
Krishnan, A. Difference equation analysis of nonlinear subharmonic and superharmonic oscillations. **82k:70023**
Marhašov, L. M. Examples of approximate investigation of the neighborhood of stationary modes of oscillating mechanical systems with a small parameter. **82g:70047**

secondary classifications:

Contopoulos, G. (*with* Michaelidis, P.) Bifurcations of triple-periodic orbits. **(82h:34050)**
De Castro, Ercole On the mutual synchronization of a set of coupled oscillators. Considerations on the effect of pacemakers on cardiac cells. (Italian) **(82h:92006)**
Hazin, L. G. (*with* Šnol', È. È.) Equilibrium stability conditions under 1:3 resonance. **(82m:34050)**
Holmes, Philip J. *See* **Rand, R. H., (82g:58057)**
Kay, Kenneth G. Numerical study of intramolecular vibrational energy transfer: quantal, classical, and statistical behavior. **(82c:81165)**
Mettler, E. Über eine Kombinationsresonanz im Dreikörperproblem. (English and Russian summaries) **(82f:70004)**
Michaelidis, P. *See* **Contopoulos, G., (82h:34050)**
Rand, R. H. (*with* Holmes, Philip J.) Bifurcation of periodic motions in two weakly coupled van der Pol oscillators. (French and German summaries) **(82g:58057)**
Sethna, P. R. Bifurcation theory and averaging in mechanical systems. **(82h:58036)**
Singh, Y. P. Quenching in a system of van der Pol oscillators with nonlinear coupling. **(82i:70024)**
Šnol', È. È. *See* **Hazin, L. G., (82m:34050)**
Žavnerčik, V. È. On the stability of autonomous systems in the presence of several resonances. **(82h:70026)**

70K40 Forced motions

Plahtienko, N. P. Forced oscillations of a system with nonmonotonic discontinuous characteristic friction. **82k:70024**
Singh, Y. P. Quenching in a system of van der Pol oscillators with nonlinear coupling. **82i:70024**

secondary classifications:

Arneodo, A. *See* **Langford, W. F.; et al., (82k:58074)**
Atherton, Derek P. *See* **Rao, U. M., (82g:93030)**
Coste, Jean *See* **Langford, W. F.; et al., (82k:58074)**
Coullet, P. *See* **Langford, W. F.; et al., (82k:58074)**
Langford, W. F. (*with* Arneodo, A.; Coullet, P.; Tresser, C.; Coste, Jean) A mechanism for a soft mode instability. **(82k:58074)**
Matveev, V. N. Investigations of the vibrations of a cutting tool in the machining of metals within a framework of a mathematical model. (Russian) **(82f:34100)**
McLaughlin, John B. Period-doubling bifurcations and chaotic motion for a parametrically forced pendulum. **(82e:58074)**
Rao, U. M. (*with* Atherton, Derek P.) Periodic oscillations in pulse-modulated systems. **(82g:93030)**
Tresser, C. *See* **Langford, W. F.; et al., (82k:58074)**

70K50 Transition to stochasticity [See also 58F13.]

Blacher, S. (*with* Perdang, J.) The power of chaos. **82k:70025**
Nozières, P. (*with* Saint-James, D.) Transient growth of fluctuations when sweeping a system through bifurcation. **82h:70027**
Perdang, J. *See* **Blacher, S., 82k:70025**
Saint-James, D. *See* **Nozières, P., 82h:70027**

secondary classifications:

Akamatsu, Norio *See* **Ueda, Yoshisuke, (82h:58029)**
Alekseev, Vladimir Mihaĭlovič (*with* Jakobson, M. V.) Symbolic dynamics and hyperbolic dynamic systems. **(82j:58093)**
Ali, M. K. (*with* Somorjai, R. L.) Reappearance of ordered motion in some nonintegrable Hamiltonian systems. **(82d:58026)**
Benettin, Giancarlo (*with* Froeschlé, C.; Scheidecker, J.-P.) Kolmogorov entropy of a dynamical system with an increasing number of degrees of freedom. **(82k:58063)**
Berne, B. J. *See* **De Leon, Nelson, (82j:80004)**
Bhattacharjee, A. *See* **Cary, John R.; et al., (82j:58102)**
Booty, M. (*with* Gibbon, John; Fowler, A. C.) A study of the effect of mode truncation on an exact periodic solution of an infinite set of Lorenz equations. **(82m:58037)**
Braun, Martin Invariant curves, homoclinic points, and ergodicity in area-preserving mappings. **(82f:58069)**
Cary, John R. (*with* Meiss, James D.; Bhattacharjee, A.) Statistical characterization of periodic, area-preserving mappings. **(82j:58102)**
Casati, G. (*with* Lazzaro, E.; Nowak, S.) Stochastic effects induced by pulsed R.F. on trapped particles in a tokamak. **(82m:82028)**
Collet, Pierre (*with* Eckmann, Jean-Pierre) ★Iterated maps on the interval as dynamical systems. **(82j:58078)**
Contopoulos, G. Do successive bifurcations in Hamiltonian systems have the same universal ratio? **(82j:70014)**
Davis, Michael J. (*with* Heller, Eric J.) Quantum dynamical tunneling in bound states. **(82j:81067)**
De Leon, Nelson (*with* Berne, B. J.) Intramolecular rate process: isomerization dynamics and the transition to chaos. **(82j:80004)**
Eckmann, Jean-Pierre *See* **Collet, Pierre, (82j:58078)**
Feigenbaum, Mitchell J. Universal behavior in nonlinear systems. **(82h:58031)**
Fowler, A. C. *See* **Booty, M.; et al., (82m:58037)**
Franceschini, Valter (*with* Russo, Lucio) Stable and unstable manifolds of the Hénon mapping. **(82m:58038)**
Fraser, Simon (*with* Kapral, Raymond) Resonance model for chaos near period three. **(82g:58064)**
Froeschlé, C. *See* **Benettin, Giancarlo; et al., (82k:58063)**
Galgani, Luigi On Nernst's deduction of Planck's law and the problem of the Arnol'd diffusion. (Italian and Russian summaries) **(82i:81007)**
(*with* Giorgilli, A.; Strelcyn, J.-M.) Chaotic motions and transition to stochasticity in the classical problem of the heavy rigid body with a fixed point. (Italian and Russian summaries) **(82j:70004)**
Gibbon, John *See* **Booty, M.; et al., (82m:58037)**
Giorgilli, A. *See* **Galgani, Luigi; et al., (82j:70004)**
Heller, Eric J. *See* **Davis, Michael J., (82j:81067)**
Hirakawa, Kazuyoshi *See* **Ito, Keisuke; et al., (82k:58068)**
Hitzl, Donald L. Numerical determination of the capture/escape boundary for the Hénon attractor. **(82j:58076)**
Hsu, Chieh Su A generalized theory of cell-to-cell mapping for nonlinear dynamical systems. **(82k:58056)**
Ito, Keisuke (*with* Oono, Yoshitsugu; Yamazaki, Hideki; Hirakawa, Kazuyoshi) Chaotic behavior in great earthquakes—coupled relaxation oscillator model, billiard model and electronic circuit model. **(82k:58068)**
Jakobson, M. V. *See* **Alekseev, Vladimir Mihaĭlovič, (82j:58093)**
Kapral, Raymond *See* **Fraser, Simon, (82g:58064)**
Kidachi, Hideyuki On a chaos as a mode interacting phase. **(82i:58045)**
Lazzaro, E. *See* **Casati, G.; et al., (82m:82028)**
Lichtenberg, A. J. *See* **Tennyson, Jeffrey; et al., (82j:58050)**
Lieberman, M. A. *See* **Tennyson, Jeffrey; et al., (82j:58050)**
Loginov, V. M. (*with* Šapiro, V. E.) Behavior of an oscillator under a periodic parametric action with chaotic modulation. **(82j:58081)**
Loparo, Kenneth A. Energy transfer in stochastic systems. **(82f:58077)**
Marcus, R. A. *See* **Ramaswamy, Ramakrishna, (82g:58056)**
McLaughlin, John B. Period-doubling bifurcations and chaotic motion for a parametrically forced pendulum. **(82e:58074)**
Meiss, James D. *See* **Cary, John R.; et al., (82j:58102)**
Nowak, S. *See* **Casati, G.; et al., (82m:82028)**
Oono, Yoshitsugu *See* **Ito, Keisuke; et al., (82k:58068)**
Percival, Ian C. Variational principles for invariant tori and cantori. **(82m:58040)**
Ramaswamy, Ramakrishna (*with* Marcus, R. A.) On the onset of chaotic motion in deterministic systems. **(82g:58056)**
Russo, Lucio *See* **Franceschini, Valter, (82m:58038)**
Šapiro, V. E. *See* **Loginov, V. M., (82j:58081)**
Scheidecker, J.-P. *See* **Benettin, Giancarlo; et al., (82k:58063)**
Shimizu, Toshihiro Asymptotic form of a strange attractor. **(82j:58084)**
Somorjai, R. L. *See* **Ali, M. K., (82d:58026)**
Strelcyn, J.-M. *See* **Galgani, Luigi; et al., (82j:70004)**
(Szűcs, J.) *See* **American Mathematical Society Translations, Ser. 2, (82f:00004)**
Tennyson, Jeffrey (*with* Lieberman, M. A.; Lichtenberg, A. J.) Diffusion in near-integrable Hamiltonian systems with three degrees of freedom. **(82j:58050)**
Ueda, Yoshisuke (*with* Akamatsu, Norio) Chaotically transitional phenomena in the forced negative-resistance oscillator. **(82h:58029)**
van Velsen, J. F. C. The average Riemann curvature of conservative systems in classical mechanics. **(82g:70032)**
Yamazaki, Hideki *See* **Ito, Keisuke; et al., (82k:58068)**
American Mathematical Society Translations, Ser. 2 ★American Mathematical Society Translations, Ser. 2, Vol. 116. **(82f:00004)**
Dynamical systems ★American Mathematical Society Translations, Ser. 2, Vol. 116. **(82f:00004)**
Random systems and dynamical systems ★Random systems and dynamical systems. **(82k:58039)**

Symposium:
Random Systems and Dynamical Systems ★Random systems and dynamical systems. **(82k:58039)**

70K99 None of the above, but in this section

Akulenko, L. D. (*with* Bolotnik, N. N.; Heimann, Bodo; Kaplunov, A. A.; Loose, H.; Ueckerdt, R.) ★Dynamik und optimale Schwingungstilgung in unwuchterregten Schwingsystemen. (German) [Dynamics and optimal damping of oscillations in oscillation systems generated by imbalance] **82e:70021**
Blehman, I. I. Development of the conception of direct separation of motions in nonlinear mechanics. (Russian) **82f:70012**
Bolotnik, N. N. *See* **Akulenko, L. D.; et al., 82e:70021**
Bosquet, J. Fonctions périodiques et problèmes non linéaires. (English summary) **82i:70025**
Büttiker, M. (*with* Landauer, R.) Multistable driven systems. (*See* **82g:82003**)
Büttner, H. *See* **Mokross, F., 82m:70026**
Heimann, Bodo *See* **Akulenko, L. D.; et al., 82e:70021**
Infeld, E. Quantitive theory of the Fermi-Pasta-Ulam recurrence in the nonlinear Schrödinger equation. **82i:70026**
Kaplunov, A. A. *See* **Akulenko, L. D.; et al., 82e:70021**
Kozlov, V. V. Oscillations of one-dimensional systems with periodic potential. (Russian. English summary) **82g:70048**
Landauer, R. *See* **Büttiker, M.,** (*See* **82g:82003**)
Loose, H. *See* **Akulenko, L. D.; et al., 82e:70021**
Manevič, L. I. (*with* Pilipčuk, V. N.) Nonlinear vibrations of a three-element mechanical system with several equilibrium positions. **82k:70026**
Melloni, Franca Gallerani On an approximate integration for the equations of a mechanical, nonautonomous system. (Italian) **82h:70028**
Mokross, F. (*with* Büttner, H.) Comments on the diatomic Toda lattice. **82m:70026**
Pilipčuk, V. N. *See* **Manevič, L. I., 82k:70026**
Pivovarov, I. Some nonlinear systems' damping properties. **82d:70040**
Nonconservative oscillatory systems with periodic solutions. (German summary) **82e:70022**
Ray, John R. (*with* Reid, James L.) Ermakov systems, velocity-dependent potentials, and nonlinear superposition. **82c:70029**
Reid, James L. *See* **Ray, John R., 82c:70029**
Rozenvasser, E. N. Sensitivity study of oscillatory processes with respect to the excitation frequency. **82i:70027**
Sueoka, Atsuo *See* **Tamura, Hideyuki; et al., 82f:70013**
Tamura, Hideyuki (*with* Tsuda, Yoshihiro; Sueoka, Atsuo) Higher approximation of steady oscillations in nonlinear systems with single degree of freedom (suggested multiharmonic balance method). **82f:70013**
Tsuda, Yoshihiro *See* **Tamura, Hideyuki; et al., 82f:70013**
Ueckerdt, R. *See* **Akulenko, L. D.; et al., 82e:70021**

secondary classifications:

Ali, M. K. (*with* Somorjai, R. L.) Perturbations that preserve integrability. A constructive approach. **(82h:58022)**
Alpatov, A. P. *See* **Madatov, G. L.; et al., (82h:93028)**
Augusteijn, Marijke F. (*with* Breitenberger, Ernst) Integration of near-resonant systems in slow-fluctuation approximation. **(82e:70020a)**
(*with* Breitenberger, Ernst) Erratum: "Integration of near-resonant systems in slow-fluctuation approximation". **(82e:70020b)**
Bräuer, H. Subcritical solutions in a special nonlinear $\alpha\omega$-dynamo model. (German summary) **(82e:86006)**
Breitenberger, Ernst *See* **Augusteijn, Marijke F., (82e:70020a)** *and* **(82e:70020b)**
Butera, P. (*with* Galgani, Luigi; Giorgilli, A.; Tagliani, A.; Sabata, Hideki) Stochasticity thresholds in a lattice field theory. (Italian and Russian summaries) **(82a:81030)**
Collins, Michael A. A quasicontinuum approximation for solitons in an atomic chain. **(82a:82003)**
Galgani, Luigi *See* **Butera, P.; et al., (82a:81030)**
Giorgilli, A. *See* **Butera, P.; et al., (82a:81030)**
Golec′, B. Ī. (*with* Golec′, V. L.; Petrišin, R. I.) On averaging in some nonlinear systems. (Russian) **(82j:34046)**
Golec′, V. L. *See* **Golec′, B. Ī.; et al., (82j:34046)**
Gorbuncov, V. V. *See* **Madatov, G. L.; et al., (82h:93028)**
Horošilov, V. S. *See* **Madatov, G. L.; et al., (82h:93028)**
Jaščenko, V. F. *See* **Madatov, G. L.; et al., (82h:93028)**
Komarov, V. G. *See* **Madatov, G. L.; et al., (82h:93028)**
Krivošeja, S. A. A scheme of the averaging method for studying resonance modes in distributed systems excitable by multifrequency momentary pulse forces. (Russian) **(82a:35016)**
Kuramoto, Yoshiki Rhythms and turbulence in populations of chemical oscillators. (French summary) **(82g:80017)**
Madatov, G. L. (*with* Ščanin, V. N.; Gorbuncov, V. V.; Mažara, G. N.; Komarov, V. G.; Alpatov, A. P.; Horošilov, V. S.; Jaščenko, V. F.) ★Прикладные методы исследования управляемых механических систем. (Russian) [Applied methods of investigation of mechanical control systems] **(82h:93028)**
Malomed, B. A. *See* **Zel′dovič, Ja. B., (82d:80024)**
Marcus, R. A. *See* **Ramaswamy, Ramakrishna, (82g:58055)**
Mažara, G. N. *See* **Madatov, G. L.; et al., (82h:93028)**
Nguyễn Văn Đạo Nonlinear oscillations of third order systems. I. Autonomous systems. (Russian and Polish summaries) **(82m:34035a)**
Nonlinear oscillations of third order systems. II. Nonautonomous systems. (Polish and Russian summaries) **(82m:34035b)**
Nonlinear oscillations of the third order systems. III. Parametric oscillation. (Polish and Russian summaries) **(82m:34035c)**
Pal′mov, V. A. Integral methods for investigating the vibration of complex dynamical systems. (Russian. English summary) **(82a:73033)**
Petrišin, R. I. *See* **Golec′, B. Ī.; et al., (82j:34046)**
Pyžkova, N. V. Solution of the problem of isochronism of the center for a system of nonlinear oscillations. (Russian) **(82f:34041)**
Ramaswamy, Ramakrishna (*with* Marcus, R. A.) Perturbative examination of avoided crossings. **(82g:58055)**
Ren, Zeng Xun Dynamical response of elastic structures—on quadric eigenvalue problems and engineering solution for dynamical response problems of elastic structures. (Chinese. English summary) **(82h:70024)**
Sabata, Hideki *See* **Butera, P.; et al., (82a:81030)**
Schmidt, George Stochasticity and fixed-point transitions. **(82c:58024)**
Ščanin, V. N. *See* **Madatov, G. L.; et al., (82h:93028)**
Skripnik, A. Ī. Algebraic structure of algorithms of asymptotic methods of nonlinear mechanics. (Russian) **(82g:65045)**
Somorjai, R. L. *See* **Ali, M. K., (82h:58022)**
Tagliani, A. *See* **Butera, P.; et al., (82a:81030)**
Zel′dovič, Ja. B. (*with* Malomed, B. A.) Topological invariants and strings in distributed active dynamical systems. (Russian) **(82d:80024)**

70L05 Random vibrations [See also 93Exx.]

Benzi, Roberto (*with* Sutera, Alfonso; Vulpiani, Angelo) The mechanism of stochastic resonance. **82k:70027**
Brommundt, E. Einmassenschwinger mit Coulombscher Reibung und zufälliger Impulserregung. **82k:70028**
Caughey, T. K. *See* **Ma, Fai, 82k:70030**
Dykman, M. I. (*with* Krivoglaz, M. A.) Fluctuations in nonlinear systems near bifurcations corresponding to the appearance of new stable states. **82a:70021**
(*with* Krivoglaz, M. A.) Time correlation functions and spectral distributions of the Duffing oscillator in a random force field. **82a:70022**
Fedorov, Ju. A. *See* **Smirnov, A. I.; et al., 82c:70030**
Fujita, Takafumi (*with* Hattori, Shinobu) Nonstationary random vibration of a nonlinear system with collision. **82a:70023**
Hanggi, Peter Dynamics of nonlinear oscillators with fluctuating parameters. **82a:70024**
Hattori, Shinobu *See* **Fujita, Takafumi, 82a:70023**
Heimann, Bodo ★Dynamische Systeme unter gleichzeitiger periodischer und zufälliger Fremderregung. (German) [Dynamic systems with combined periodic and random excitation] **82f:70014**
Krivoglaz, M. A. *See* **Dykman, M. I., 82a:70021** *and* **82a:70022**
Lakatos-Lindenberg, Katja (*with* Seshadri, Venkita; Shuler, Kurt E.; West, Bruce J.) Equal-time second-order moments of a harmonic oscillator with stochastic frequency and driving force. **82i:70028**
Lindgren, Georg Jumps and bumps on random roads. **82k:70029**
Ma, Fai (*with* Caughey, T. K.) Stability of stochastic difference systems. **82k:70030**
Martin, Paul C. *See* **Shraiman, Boris; et al., 82g:70051**
Prussing, J. E. Stabilization of an unstable linear system by parametric white noise. **82g:70049**
Schmidt, Günter Forced and parametrically excited nonlinear random vibrations. (*See* **82k:70002b**)
Schwingungen unter gleichzeitiger zufälliger Zwangs- und Parametererregung. (English and Russian summaries) **82g:70050**
Semenov, V. A. *See* **Smirnov, A. I.; et al., 82c:70030**
Seshadri, Venkita *See* **Lakatos-Lindenberg, Katja; et al., 82i:70028**
Shraiman, Boris (*with* Wayne, C. Eugene; Martin, Paul C.) Scaling theory for noisy period-doubling transitions to chaos. **82g:70051**
Shuler, Kurt E. *See* **Lakatos-Lindenberg, Katja; et al., 82i:70028**
Smirnov, A. I. (*with* Fedorov, Ju. A.; Semenov, V. A.) Stability of dynamical systems under periodic unsteady parametric excitation. (Russian) **82c:70030**
Spanos, P.-T. D. Numerical simulations of a van der Pol oscillator. **82c:70031**
A method for analysis of nonlinear vibrations caused by modulated random excitation. (French and German summaries) **82e:70023**
Sutera, Alfonso *See* **Benzi, Roberto; et al., 82k:70027**
Venter, A. *See* **Yavin, Yaakov, 82m:70027**
Vulpiani, Angelo *See* **Benzi, Roberto; et al., 82k:70027**
Wayne, C. Eugene *See* **Shraiman, Boris; et al., 82g:70051**
Wedig, W. The integration of nonlinear stochastic systems with applications to the damage and ambiguity identification. (German and Russian summaries) **82f:70015**
West, Bruce J. *See* **Lakatos-Lindenberg, Katja; et al., 82i:70028**
Yavin, Yaakov (*with* Venter, A.) Computation of impulse control laws for a nonlinear stochastic oscillator. **82m:70027**

secondary classifications:

Berkowitz, M. (*with* McCammon, J. A.) Brownian motion of a system of coupled harmonic oscillators. **(82h:92011)**
Bunde, A. (*with* Gouyet, J.-F.) Diffusion in time dependent potentials: a systematic treatment. **(82i:82076)**
Caughey, T. K. *See* **Ma, Fai, (82i:60119)**
Cikailo, T.-N. M. *See* **Kolomiec′, V. G., (82k:60130)**
Curtain, Ruth F. Stability of stochastic partial differential equations. **(82j:60109)**
Ebeling, Werner (*with* Engel-Herbert, H.) The influence of external fluctuations on self-sustained temporal oscillations. **(82e:58070)**
Engel-Herbert, H. *See* **Ebeling, Werner, (82e:58070)**
Gaponov-Grehov, A. V. (*with* Rabinovič, M. I.) Stochastic auto-oscillations in radiophysics and hydrodynamics. (Russian) **(82d:58042)**
Gouyet, J.-F. *See* **Bunde, A., (82i:82076)**
Grigolini, Paolo Brownian motion of harmonic systems with fluctuating parameters: a discussion in terms of "virtual" heat baths. **(82i:82008)**
Hamada, Yoshiyasu The influence of external noise on a marginal or a critical equilibrium point. **(82m:60128)**

Kolomiĕc', V. G. (*with* Cīkaĭlo, T.-N. M.) Random oscillations in stochastic systems that are almost exactly integrable. (Russian) **(82k:60130)**
Lindenberg, Katja (*with* Seshadri, Venkita) Dissipative contributions of internal multiplicative noise. I. Mechanical oscillator. **(82k:82025)**
Loginov, V. M. (*with* Šapiro, V. E.) Behavior of an oscillator under a periodic parametric action with chaotic modulation. **(82j:58081)**
Lopato, Kenneth A. Energy transfer in stochastic systems. **(82f:58077)**
Ma, Fai (*with* Caughey, T. K.) Moment stability of linear stochastic difference systems. **(82i:60119)**
McCammon, J. A. *See* **Berkowitz, M., (82k:92011)**
Pritula, N. N. Excitation of oscillations in nonlinear systems with distributed parameters and a random deviation with respect to time. (Russian) **(82k:35094)**
Rabinovič, M. I. *See* **Gaponov-Grehov, A. V., (82d:58042)**
Šapiro, V. E. *See* **Loginov, V. M., (82j:58081)**
Seshadri, Venkita *See* **Lindenberg, Katja, (82k:82025)**
Wedig, W. Modale und integrale Kovarianzanalyse hybrider Systeme. (English and Russian summaries) **(82e:73056)**

70Mxx Orbital mechanics

70M05 Satellite problems

Anikovskiĭ, V. V. *See* **Žuravlev, S. G., 82h:70033**
Beleckiĭ, V. V. (*with* Pogorelov, D. Ju.) Plane resonance rotations of a satellite in an elliptic orbit. **82g:70052**
Bhatnagar, K. B. (*with* Taqvi, Z. A.) Perturbations of the elements of near-circular earth satellite orbits. **82i:70029**
Gooding, R. H. A second-order satellite orbit theory, with compact results in cylindrical coordinates. **82c:70032**
Hasanova, M. H. Equations of perturbed motion of an equatorial satellite in the "action-angle" variables. **82f:70016**
Hentov, A. A. *See* **Ogarkova, T. N., 82d:70041**
Hoots, Felix R. Theory of the motion of an artificial earth satellite. **82g:70053**
Jezewski, Donald Primer vector theory applied to the linear relative-motion equations. **82h:70009**
Koval'skiĭ, I. P. (*with* Kudin, G. I.) On stability of certain nonstationary systems. **82g:70054**
Kudin, G. I. *See* **Koval'skiĭ, I. P., 82g:70054**
Kwok, Johnny H. (*with* Nacozy, Paul E.) Time elements in rectangular coordinates. **82i:70030**
Liu, Lin (*with* Zhao, De Zi) Solar and lunar perturbation of the orbit of an artificial satellite. (Chinese. English summary) **82h:70029**
Melis, A. On the potential of forces concerning a fixed family of orbits. (Italian. English summary) **82h:70010**
Mioc, Vasile The difference between the nodal and Keplerian periods of artificial satellites as an effect of atmospheric drag. (French summary) **82c:70033**
Moyer, Theodore D. Transformation from proper time on earth to coordinate time in solar system barycentric space-time frame of reference. I, II. **82e:70024**
Nacozy, Paul E. *See* **Kwok, Johnny H., 82i:70030**
Ogarkova, T. N. (*with* Hentov, A. A.) Magnetic-gravitational stabilization of a triaxial satellite. **82d:70041**
Pogorelov, D. Ju. *See* **Beleckiĭ, V. V., 82g:70052**
Popescu, Mihai Florin Étude du mouvement optimum des véhicules spatiaux dans les conditions de la limitation du transfert de chaleur. **82d:70042**
On the optimal transfer of a space vehicle at the libration point equidistant from the Earth-Moon system. (Romanian) **82e:70025**
On re-entry into the atmosphere of spaceships on a circular trajectory with maximum final velocity and with limitation of the heat transfer. (Romanian. English summary) **82h:70030**
Saryčev, V. A. (*with* Sazonov, V. V.) Gravitational orientation of a rotating satellite. (Russian) **82g:70055**
(*with* Sazonov, V. V.) The effect of atmospheric resistance on single-axis gravitational orientation of a satellite. (Russian. English summary) **82h:70031**
Sazonov, V. V. *See* **Saryčev, V. A., 82g:70055** *and* **82h:70031**
Taqvi, Z. A. *See* **Bhatnagar, K. B., 82i:70029**
Tong, Fu *See* **Wu, Lian Da, 82h:70032**
Wu, Lian Da (*with* Tong, Fu) A third-order solution of Vinti's problem with explicit expressions for the Poisson brackets. **82h:70032**
Zhao, De Zi *See* **Liu, Lin, 82h:70029**
Žuravlev, S. G. (*with* Anikovskiĭ, V. V.) Expansion of the perturbing function of a satellite restricted four-body problem. **82h:70033**

secondary classifications:

Cohen, C. J. (*with* Lyddane, R. H.) Radius of convergence of Lie series for some elliptic elements. **(82m:70011)**
Deprit, André A note concerning the TR-transformation. **(82d:70033)**
Favorskiĭ, A. P. *See* **Korsija, T. K.; et al., (82i:76023)**
Goldreich, Peter (*with* Tremaine, Scott) Disk-satellite interactions. **(82a:70010)**
Gurtu, S. K. (*with* Kalra, O. P.) The motion of a satellite around a varying mass planet. **(82d:70044)**
Hoševnikov, K. V. Short-periodic perturbations of the state vector in the method of Lie transforms. (Russian. English summary) **(82i:58059)**
Kalra, O. P. *See* **Gurtu, S. K., (82d:70044)**
Korsija, T. K. (*with* Ljubimov, B. Ja.; Favorskiĭ, A. P.) Hamilton's principle for fluid in Euler variables. (Russian) **(82i:76023)**
Kostjukovič, N. N. Frames of reference with orbital triad orientation in general relativity. (Russian. English summary) **(82k:83037)**
Langebartel, R. G. Formulation of the restricted three-body problem with two-center problem orbits as intermediate orbits. **(82e:70009)**
Ljubimov, B. Ja. *See* **Korsija, T. K.; et al., (82i:76023)**
Lyddane, R. H. *See* **Cohen, C. J., (82m:70011)**
Sokolov, V. G. Symmetric trajectories of a satellite of a nonspherical planet. (Russian. English summary) **(82m:70015)**
Tremaine, Scott *See* **Goldreich, Peter, (82a:70010)**

70M10 Orbital stability

Beck, A. *See* **Longman, R.; et al., 82m:70028**
Hagedorn, P. *See* **Longman, R.; et al., 82m:70028**
Longman, R. (*with* Hagedorn, P.; Beck, A.) Stabilization due to gyroscopic coupling in dual-spin satellites subject to gravitational torques. **82m:70028**
Markeev, A. P. (*with* Sokol'skiĭ, A. G.) Method of constructing and investigating stability of periodic motions of autonomous Hamiltonian systems. **82i:70031**
Markellos, V. V. (*with* Roy, Archie E.) Hill stability of satellite orbits. **82d:70043**
Roy, Archie E. *See* **Markellos, V. V., 82d:70043**
Sokol'skiĭ, A. G. *See* **Markeev, A. P., 82i:70031**

secondary classifications:

Losco, L. (*with* Marchal, C.) Sur une nouvelle propriété des équations linéarisées de la collision triple du problème des 3 corps. (English summary) [A new property of variational equations of the triple collision in the 3-body problem] **(82m:70005)**
Marchal, C. *See* **Losco, L., (82m:70005)**
Popescu, Mihai Florin On re-entry into the atmosphere of spaceships on a circular trajectory with maximum final velocity and with limitation of the heat transfer. (Romanian. English summary) **(82h:70030)**
Šinkin, V. N. On the search for stable resonance modes by means of their extremal properties. (Russian) **(82i:70022)**
V'juga, A. A. Gradient of the field of directions along the normal to the trajectory and the third integral. (Russian. English summary) **(82e:85001)**

70M99 None of the above, but in this section

Novoselov, V. S. Algorithmization of the asymptotic theory of optimization of two-impulse transfer. (Russian) **82f:70017**
Schutz, B. E. The mutual potential and gravitational torques of two bodies to fourth order. **82h:70034**

secondary classifications:

Kričever, I. M. Elliptic solutions of the Kadomcev-Petviašvili equations, and integrable systems of particles. (Russian) **(82e:58046)**
Sumbatov, A. S. Solution of one of Birkhoff's problems. **(82i:58031)**

70N05 Exterior ballistics

Bagirova, S. Ju. *See* **Maksudov, F. G.; et al., 82h:70035**
Maksudov, F. G. (*with* Bagirova, S. Ju.; Šamilov, A. H.) Smoothness of certain functionals, given in implicit form by a functional equation. (Russian. Azerbaijani and English summaries) **82h:70035**
Pagan, G. (*with* Richards, P. J.) A bound for solutions of a fourth-order dynamical system. **82i:70032**
Richards, P. J. *See* **Pagan, G., 82i:70032**
Šamilov, A. H. *See* **Maksudov, F. G.; et al., 82h:70035**
Tanzi Cattabianchi, Luigi On some variations and generalizations of a formula of terminal ballistics due to Resal. (Italian. English summary) **82i:70033**

secondary classifications:

Aumasson, C. *See* **Cotillon, Th.; et al., (82f:93070)**
Charon, W. *See* **Cotillon, Th.; et al., (82f:93070)**
Cotillon, Th. (*with* Gaillard, P.; Charon, W.; Aumasson, C.; Huynh, H. T.) Restitution par filtrage de Kalman et lissage de Rauch des trajectoires, attitudes et caractéristiques de maquettes d'avion catapultées en vol libre. (English and German summaries) **(82f:93070)**
Gaillard, P. *See* **Cotillon, Th.; et al., (82f:93070)**
Huynh, H. T. *See* **Cotillon, Th.; et al., (82f:93070)**
Šamilov, A. H. Smoothness of some special operators. (Russian. Azerbaijani and English summaries) **(82a:34081)**

70P05 Variable mass, rockets

Berkovič, L. M. The Gyldén-Meščerskiĭ problem and the laws of variation of mass. (Russian) **82c:70034**
Transformation of the Gil'den-Meščerskiĭ problem to its stationary form and the laws of mass change. **82k:70031**
Burgan, J. R. *See* **Munier, A.; et al., 82b:70011**
Feix, M. R. *See* **Munier, A.; et al., 82b:70011**
Fijalkow, E. *See* **Munier, A.; et al., 82b:70011**
Gurtu, S. K. (*with* Kalra, O. P.) The motion of a satellite around a varying mass planet. **82d:70044**
Kalra, O. P. *See* **Gurtu, S. K., 82d:70044**
Munier, A. (*with* Burgan, J. R.; Feix, M. R.; Fijalkow, E.) Asymptotic solutions for a variable mass two-body problem. **82b:70011**
Popescu, Mihai Florin On an asymptotic representation related to the integration of the equation of motion of a rocket in a resistant medium. (Romanian) **82e:70026**
Voevodina, L. P. Motion of a rotating cylinder of variable mass when the reactive force changes only the angular velocity of rotation. (Russian) **82i:70034**

secondary classifications:

Berkovič, L. M. Gylden-Meščerskiĭ problem. **(82i:70008)**
Haug, Edward J. *See* **Huang, Ray C., (82i:90127b)**
Huang, Ray C. (*with* Haug, Edward J.) A distribution-theoretic method for design sensitivity analysis of mechanisms with intermittent motion. II. Applications. **(82i:90127b)**

70Q05 Control of mechanical systems [See also 49Exx, 90D25, 90D26, 93Cxx, 93Dxx.]

Akulenko, L. D. (*with* Bolotnik, N. N.) On the control of systems with elastic elements. **82j:70017**
Bolotnik, N. N. *See* **Akulenko, L. D., 82j:70017**
Do Šan' On the Gauss principle and the motion equations of controlled mechanical systems. **82g:70056**
Krementulo, V. V. Stabilization of the equilibrium position of a solid body using movable masses. **82k:70032**
Schoenberg, I. J. The Landau problem for motions on curves and time-optimal control problems. **82i:70035**
Zaremba, A. T. Synthesis of control of a pendulum. **82i:70036**

secondary classifications:

Akulenko, L. D. Time-optimal stabilization of a perturbed system with invariant norm. **(82k:49026)**
Alpatov, A. P. *See* **Madatov, G. L.; et al., (82h:93028)**
Bolotnik, N. N. (*with* Kaplunov, A. A.) Some problems of optimal control of rotation of a solid. **(82j:49003)**
Caughey, T. K. *See* **Ma, Fai, (82i:93089)**
Erovenko, L. D. An algorithm for improving admissible controls in systems with delay. (Russian) **(82k:93035)**
Gorbuncov, V. V. *See* **Madatov, G. L.; et al., (82h:93028)**
Horošilov, V. S. *See* **Madatov, G. L.; et al., (82h:93028)**
Hubert, Carl Dynamics of the generalized dual-spin turn. **(82i:70005)**
Jaščenko, V. F. *See* **Madatov, G. L.; et al., (82h:93028)**
Kaplunov, A. A. *See* **Bolotnik, N. N., (82j:49003)**
Komarov, V. G. *See* **Madatov, G. L.; et al., (82h:93028)**
Lebedev, D. V. Control of motion of a rigid body in a gravitational field. **(82g:70018)**
Ma, Fai (*with* Caughey, T. K.) On the stability of linear and nonlinear stochastic transformations. **(82i:93089)**
Madatov, G. L. (*with* Šičanin, V. N.; Gorbuncov, V. V.; Mažara, G. N.; Komarov, V. G.; Alpatov, A. P.; Horošilov, V. S.; Jaščenko, V. F.) ★Прикладные методы исследования управляемых механических систем. (Russian) [Applied methods of investigation of mechanical control systems] **(82h:93028)**
Mažara, G. N. *See* **Madatov, G. L.; et al., (82h:93028)**
Šičanin, V. N. *See* **Madatov, G. L.; et al., (82h:93028)**
Udwadia, F. E. Controllability, observability and identification of classical linear dynamic systems. **(82i:70021)**
Venter, A. *See* **Yavin, Yaakov, (82m:70027)**
Yavin, Yaakov (*with* Venter, A.) Computation of impulse control laws for a nonlinear stochastic oscillator. **(82m:70027)**
Zubov, V. I. Optimal damping of rotational motion. **(82h:70005)**

73–XX MECHANICS OF SOLIDS

73–01 Elementary exposition, textbooks

Atkin, R. J. (*with* Fox, N.) ★An introduction to the theory of elasticity. **82c:73001**
Baldock, G. R. (*with* Bridgeman, T.) ★Mathematical theory of wave motion. **82h:73001**
Bridgeman, T. *See* **Baldock, G. R., 82h:73001**
Fox, N. *See* **Atkin, R. J., 82c:73001**
Lehnickiĭ, S. G. ★Theory of elasticity of an anisotropic body. **82d:73001**
Leipholz, Horst ★Stabilität elastischer Systeme. (German) [Stability of elastic systems] **82g:73001a**
★Stability of elastic systems. **82g:73001b**
Meirovitch, Leonard ★Computational methods in structural dynamics. **82f:73001**

secondary classifications:

de Boer, Reint (*with* Prediger, Hanshermann) ★Tensorrechnung in der Mechanik. (German) [Tensor calculus in mechanics] **(82j:00021)**
Fetter, Alexander L. (*with* Walecka, John Dirk) ★Theoretical mechanics of particles and continua. **(82d:70001)**
(Germain, Paul) *See* **Obala, J., (82k:00005)** *and* **Valid, Roger, (82k:73040)**
Gibson, John Edward ★Thin shells. **(82f:73032)**
Obala, J. ★Exercices et problèmes de mécanique des milieux continus. (French) [Exercises and problems in the mechanics of continuous media] **(82k:00005)**
Prediger, Hanshermann *See* **de Boer, Reint, (82j:00021)**
Valid, Roger ★Mechanics of continuous media and analysis of structures. **(82k:73040)**
Walecka, John Dirk *See* **Fetter, Alexander L., (82d:70001)**

73–02 Advanced exposition (research surveys, monographs, etc.)

Ammendola, Luigi ★Le funi d'acciaio: la resistenza. (Italian) [Steel cables: their resistance] **82d:73002**
Babič, I. Ju. *See* **Guz', O. M., 82c:73002**
Guz', O. M. (*with* Babič, I. Ju.) ★Трехмерная теория устойчивости стержней, пластин и оболочек. (Russian) [Three-dimensional theory of the stability of rods, plates and shells] **82e:73002**
Hlaváček, Ivan *See* **Nečas, Jindřich, 82h:73002**
Klem-Musatov, K. D. Theory of boundary waves and its application in seismology. (Russian) **82i:73001**
Konovalov, A. N. ★Решение задач теории упругости в напряжениях. (Russian) [Solution of problems of the theory of elasticity in stresses] **82e:73003**
Merkin, D. R. ★Введение в механику гибкой нити. (Russian) [Introduction to the mechanics of a flexible filament] **82f:73002**
Migušov, I. I. ★Механика текстильной нити и ткани. (Russian) [The mechanics of textile threads and fabrics] **82j:73001**
Nečas, Jindřich (*with* Hlaváček, Ivan) ★Mathematical theory of elastic and elasto-plastic bodies: an introduction. **82h:73002**
Parton, V. Z. (*with* Perlin, P. I.) ★Методы математической теории упругости. (Russian) [Methods of the mathematical theory of elasticity] **82i:73002**
Perlin, P. I. *See* **Parton, V. Z., 82i:73002**
Sedov, L. I. Long-term trends and problems in continuum mechanics. (Russian) **82a:73001**

secondary classifications:

Amiro, I. Ja. (*with* Zaruc'kiĭ, V. O.) ★Теория ребристых оболочек. (Russian) [Theory of ribbed shells] **(82f:73037b)**
Babič, V. M. (*with* Kirpičnikova, N. Ja.) ★The boundary-layer method in diffraction problems. **(82b:35013)**
(Carter, S. R.) *See* **Poston, Tim; et al., (82i:58019)**
Čehov, Val. N. *See* **Guz', O. M.; et al., (82f:73037a)**
Čehov, Vik. N. *See* **Guz', O. M.; et al., (82f:73037a)**
(Černavskiĭ, A. V.) *See* **Poston, Tim; et al., (82i:58019)**
Černyšenko, I. S. *See* **Guz', O. M.; et al., (82f:73037a)**
Ciarlet, Philippe G. (*with* Rabier, Patrick) ★Les équations de von Kármán. (French) [The von Kármán equations] **(82g:73030)**
Guz', O. M. (*with* Černyšenko, I. S.; Čehov, Val. N.; Čehov, Vik. N.; Šnerenko, K. I.) ★Теория тонких оболочек, ослабленных отверстиями. (Russian) [Theory of thin shells weakened by holes] **(82f:73037a)**
Kirpičnikova, N. Ja. *See* **Babič, V. M., (82b:35013)**
(Kuester, Edward F.) *See* **Babič, V. M.; et al., (82b:35013)**
Marsden, Jerrold E. ★Lectures on geometric methods in mathematical physics. **(82j:58046)**
(Olsen, D. R.) *See* **Poston, Tim; et al., (82i:58019)**
Poston, Tim (*with* Stewart, Ian) ★Теория катастроф и ее приложения. (Russian) [Catastrophe theory and its applications] **(82i:58019)**
Rabier, Patrick *See* **Ciarlet, Philippe G., (82g:73030)**
(Rockwood, A.) *See* **Poston, Tim; et al., (82i:58019)**
Sánchez-Palencia, Enrique ★Nonhomogeneous media and vibration theory. **(82j:35010)**
Šnerenko, K. I. *See* **Guz', O. M.; et al., (82f:73037a)**
Stewart, Ian *See* **Poston, Tim, (82i:58019)**
Zaruc'kiĭ, V. O. *See* **Amiro, I. Ja., (82f:73037b)**
Methods for calculating shells *See* **Guz', O. M.; et al., (82f:73037a)** *and* **Amiro, I. Ja.; et al., (82f:73037b)**

73–03 Historical (must also be assigned at least one classification number from Section 01)

Amiro, I. Ja. (*with* Grigorenko, Ja. M.) The study of structural mechanics in the Academy of Sciences of the Ukrainian SSR. (Russian) **82e:73001**
Grigorenko, Ja. M. *See* **Amiro, I. Ja., 82e:73001**

secondary classifications:

(Alihan'jan, A. I.) *See* **Bessarab, M. Ja., (82c:01045)**
(Ampère, A. M.) *See* **Harlamova, E. I.; et al., (82d:01014)**
Bessarab, M. Ja. ★Ландау. (Russian) [Landau] **(82c:01045)**
Bucciarelli, Louis L. (*with* Dworsky, Nancy) ★Sophie Germain. **(82m:01057)**
Dworsky, Nancy *See* **Bucciarelli, Louis L., (82m:01057)**
Germain, Paul Notice nécrologique sur William Prager. **(82f:01101)**
(Germain, Sophie) *See* **Bucciarelli, Louis L.; et al., (82m:01057)**
Harlamova, E. I. (*with* Mozalevskaja, G. V.) A paper of Ampère. (Russian. English summary) **(82d:01014)**
Kiškin, B. P. Development of the theory of the "non-Winklerian" base in the works of Moscow University scientists. (Russian. English summary) **(82g:01032)**
(Landau, L. D.) *See* **Bessarab, M. Ja., (82c:01045)**
(Marcus, Solomon) *See* **Moisil, Grigore Costantin, (82g:01089)**
Moisil, Grigore Costantin ★Opera matematică. Vol. II. (Romanian) [Mathematical works. Vol. II] **(82g:01089)**
Mozalevskaja, G. V. *See* **Harlamova, E. I., (82d:01014)**
(Prager, William) *See* **Germain, Paul, (82f:01101)**
Rubin, Michael Architecture and geometry. (French summary) **(82e:01005)**
Biography:
Germain, Sophie *See* **Bucciarelli, Louis L.; et al., (82m:01057)**
Landau, L. D. *See* **Bessarab, M. Ja., (82c:01045)**
Obituary:
Prager, William *See* **Germain, Paul, (82f:01101)**

73–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Andersen, C. M. *See* **Noor, Ahmed K., (82h:73064)**
Gupta, K. K. Development of a unified numerical procedure for free vibration analysis of structures. **(82d:73046)**

Noor, Ahmed K. (*with* Andersen, C. M.) Computerized symbolic manipulation in nonlinear finite element analysis. **(82h:73064)**

73–05 Experimental papers

73–06 Proceedings, conferences, etc.

(Bathe, Klaus-Jürgen) *See* **Nonlinear finite element analysis and ADINA, 82e:73002**
(Bicadze, A. V.) *See* **Proceedings: Vekua, I. N. Institute of Applied Mathematics, 82f:73004**
(Čeban, V. G.) *See* **Mathematical methods in mechanics, 82c:73004**
(Cepilevič, V. G.) *See* **Problems in mechanics and applied mathematics, 82f:73003**
(Komkov, Vadim) *See* **Problems of elastic stability and vibrations, 82k:73003**
(Luxmoore, A. R.) *See* **Numerical methods in fracture mechanics, 82c:73005** *and* **82i:73003**
(Musalimov, V. M.) *See* **Problems in mechanics and applied mathematics, 82f:73003**
(Owen, D. R. J.) *See* **Numerical methods in fracture mechanics, 82c:73005** *and* **82i:73003**
(Wesołowski, Zbigniew) *See* **Nonlinear dynamics of elastic bodies, 82j:73002**
(Žitarašu, N. V.) *See* **Computational methods of mechanics, 82k:73001**
Cambridge, Mass. ★Nonlinear finite element analysis and ADINA. **82e:73002**
Computational methods of mechanics ★Вычислительные методы механики. (Russian) [Computational methods of mechanics] **82k:73001**
Conference:
ADINA, Nonlinear Finite Element Analysis ★Nonlinear finite element analysis and ADINA. **82e:73002**
Numerical Methods in Fracture Mechanics ★Numerical methods in fracture mechanics. **82i:73003**
★Numerical methods in fracture mechanics. **82c:73005**
Congress:
Japan, Applied Mechanics ★Theoretical and applied mechanics. Vol. 29. **82e:73003**
Differential equations and their applications ★Дифференциальные уравнения и их приложения. (Russian) [Differential equations and their applications] **82k:73002**
Elasticity ★Труды Института Прикладной Математики Имени И. Н. Векуа. 7. (Russian) [Proceedings of the I. N. Vekua Institute of Applied Mathematics. 7] **82f:73004**
Fracture mechanics ★Numerical methods in fracture mechanics. **82c:73005**
Mathematical methods in mechanics ★Математические методы в механике. (Russian) [Mathematical methods in mechanics] **82c:73004**
Mechanics ★Математические методы в механике. (Russian) [Mathematical methods in mechanics] **82c:73004**
★Theoretical and applied mechanics. Vol. 29. **82e:73003**
Meeting:
American Mathematical Society ★Problems of elastic stability and vibrations. **82k:73003**
Nonlinear dynamics of elastic bodies ★Nonlinear dynamics of elastic bodies. **82j:73002**
Nonlinear finite element analysis and ADINA ★Nonlinear finite element analysis and ADINA. **82e:73002**
Numerical methods in fracture mechanics ★Numerical methods in fracture mechanics. **82i:73003**
★Numerical methods in fracture mechanics. **82c:73005**
Pittsburgh, Pa. ★Problems of elastic stability and vibrations. **82k:73003**
Problems of elastic stability and vibrations ★Problems of elastic stability and vibrations. **82k:73003**
Problems in mechanics and applied mathematics ★Вопросы механики и прикладной математики. (Russian) [Problems in mechanics and applied mathematics] **82f:73003**
Proceedings:
Vekua, I. N. Institute of Applied Mathematics ★Труды Института Прикладной Математики Имени И. Н. Векуа. 7. (Russian) [Proceedings of the I. N. Vekua Institute of Applied Mathematics. 7] **82f:73004**
Session:
Problems in Elastic Vibrations, Stability and Related Topics ★Problems of elastic stability and vibrations. **82k:73003**
Swansea ★Numerical methods in fracture mechanics. **82i:73003**
★Numerical methods in fracture mechanics. **82c:73005**
Theoretical and applied mechanics ★Theoretical and applied mechanics. Vol. 29. **82e:73003**
Tokyo ★Theoretical and applied mechanics. Vol. 29. **82e:73003**

secondary classifications:

(Banerjee, P. K.) *See* **Developments in boundary element methods, (82f:65005)**
(Butterfield, R.) *See* **Developments in boundary element methods, (82f:65005)**
(Rimrott, F. P. J.) *See* **Theoretical and applied mechanics, (82d:00008)**
(Tabarrok, B.) *See* **Theoretical and applied mechanics, (82d:00008)**
(Varadan, Vasundara V.) *See* **Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach, (82h:78002)**
(Varadan, Vijay K.) *See* **Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach, (82h:78002)**
Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**
Applied analysis for partial differential equations in applied sciences ★Applied analysis for partial differential equations in applied sciences. (Japanese) **(82d:35005)**
Boundary element methods ★Developments in boundary element methods. 1. **(82f:65005)**
Columbus, Ohio ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**
Conference:
Army Mathematicians ★Transactions of the Twenty-seventh Conference of Army Mathematicians. **(82k:00010)**
Congress:
Theoretical and Applied Mechanics ★Theoretical and applied mechanics. **(82d:00008)**
Developments in boundary element methods ★Developments in boundary element methods. 1. **(82f:65005)**
Mechanics ★Theoretical and applied mechanics. **(82d:00008)**
Partial differential equations ★Applied analysis for partial differential equations in applied sciences. (Japanese) **(82d:35005)**
Symposium:
Acoustic, Electromagnetic and Elastic Wave Scattering—Focus on the *T*-Matrix Approach ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**
Applied Analysis for Partial Differential Equations in Applied Sciences ★Applied analysis for partial differential equations in applied sciences. (Japanese) **(82d:35005)**
Theoretical and applied mechanics ★Theoretical and applied mechanics. **(82d:00008)**
Toronto, Ont. ★Theoretical and applied mechanics. **(82d:00008)**
Transactions:
Conference of Army Mathematicians ★Transactions of the Twenty-seventh Conference of Army Mathematicians. **(82k:00010)**
Wave scattering ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**
West Point, N.Y. ★Transactions of the Twenty-seventh Conference of Army Mathematicians. **(82k:00010)**

73A05 Axiomatics, foundations

Atanacković, T. M. On conservation laws for continuous bodies. (German summary) **82h:73001**
Chevallier, Dominique Généralisation de l'espace-temps néoclassique de Noll et structure des théories mécaniques newtoniennes. (English summary) **82e:73004**
Darrozes, Jean-Sylvestre *See* **Michelet, Gilles, 82g:73002**
Iannece. Donatella (*with* Starita, Giulio) A new proof of the existence of the internal energy and entropy for rate type materials. **82m:73001**
Krawietz, A. Natürliche Geometrie der Deformationsprozesse. **82k:73004**
Michelet, Gilles (*with* Darrozes, Jean-Sylvestre) Flux d'entropie d'un fluide micromorphique. (English summary) **82g:73002**
Starita, Giulio *See* **Iannece, Donatella, 82m:73001**
Woźniak, Czesław Nonstandard analysis and material systems in mechanics. I, II. (Russian summary) **82m:73002**

secondary classifications:

Schmidt, Heinz-Jürgen ★Axiomatic characterization of physical geometry. **(82f:51016)**

73Bxx Continuum mechanics {For fluids, see 76Axx.}

73B05 Constitutive equations

Bertram, A. An introduction of internal constraints in a natural way. **82g:73003**
Borş, C. I. Deformable solids with microstructure having a symmetric stress tensor. **82f:73005**
Buchanan, G. R. Variational functional for diffusion in a solid with memory. **82e:73005**
Bykovcev, G. I. (*with* Sygurova, O. L.) Construction of the theory of the flow of elastoplastic media under finite deformations. (Russian) **82h:73002**
Capriz, Gianfranco (*with* Podio-Guidugli, Paolo) Materials with spherical structure. **82j:73003**
Casey, J. (*with* Naghdi, P. M.) An invariant infinitesimal theory of motions superposed on a given motion. **82k:73005**
Demiray, Hilmi A nonlocal theory of oriented media. A model to diatomic solids. (Turkish summary) **82m:73003**
Naerlović-Veljković, Natalija *See* **Plavšić, M., 82e:73006**
Naghdi, P. M. *See* **Casey, J., 82k:73005**
Perzyna, Piotr Stability phenomena of dissipative solids with internal defects and imperfections. (*See* **82d:00008**)
Pfeifroth, L. Newtonsche Flüssigkeiten als elastische Materialien mit inneren Variablen. **82j:73004**
Plavšić, M. (*with* Naerlović-Veljković, Natalija) Thermodiffusion in dipolar elastic materials. (Serbo-Croatian. English summary) **82e:73006**
(*with* Vukobrat, M.) Thermodiffusion in micropolar elastic plates. (Serbo-Croatian. English summary) **82e:73007**
Podio-Guidugli, Paolo *See* **Capriz, Gianfranco, 82j:73003**
Senčenkov, I. K. Constitutive equations of the theory of simple media with constraints of differential type. (Russian. English summary) **82a:73002**
Sławomirski, Mariusz R. The constitutive equation and unsteady flow equation of the first-order integral-type incompressible isotropic liquid. (Russian summary) **82m:73004**
Sygurova, O. L. *See* **Bykovcev, G. I., 82h:73002**
Vukobrat, M. *See* **Plavšić, M., 82e:73007**

secondary classifications:

Bècus, Georges A. (*with* Cozzarelli, F. A.) A uniqueness theorem in nonlinear viscoelasticity with application to temperature and irradiation induced creep problems. **(82d:73026)**
Chiorescu, Gh. A stability theorem for the traction boundary value problem of the linear Cosserat elasticity. **(82e:73047)**
Cozzarelli, F. A. *See* **Bècus, Georges A., (82d:73026)**
Liu, I Shih *See* **Wang, Chao Chen, (82d:73003)**
Sedov, L. I. Long-term trends and problems in continuum mechanics. (Russian) **(82a:73001)**

Wang, Chao Chen (*with* Liu, I Shih) A note on material symmetry. **(82d:73003)**

73B10 Isotropic functionals

73B15 Rotational groups [See also 22Exx.]

secondary classifications:

Baracs, Janos (*with* Luong, T. T.; Lêopold, B.; Maurice, J.) Habitat polyédrique. **(82f:52008)**
Léopold, B. *See* **Baracs, Janos; et al., (82f:52008)**
Luong, T. T. *See* **Baracs, Janos; et al., (82f:52008)**
Maurice, J. *See* **Baracs, Janos; et al., (82f:52008)**

73B20 Simple materials

Liu, I Shih *See* **Wang, Chao Chen, 82d:73003**
Wang, Chao Chen (*with* Liu, I Shih) A note on material symmetry. **82d:73003**

secondary classifications:

Paglietti, A. Can the theory of linear viscoelasticity be derived from the current thermodynamic theory of simple materials with fading memory? An objection. **(82g:73006)**

73B25 Multipolar stress theory

Acharya, Debipada (*with* Sengupta, Pran Ranjan) Lamb's plane problem in micropolar-elastic medium under influence of temperature. (Russian summary) **82a:73003**
Dihamindzia, R. G. Asymptotic behavior of eigenfunctions of some boundary value problems of an oscillation of the plane couple-stress theory of elasticity. (Russian. Georgian and English summaries) **82j:73005**
Džavahišvili, G. I. Effective solution of some boundary value problems of the two-dimensional moment theory of thermoelasticity for certain particular regions. (Russian. Georgian and English summaries) **82d:73004**
Giorgašvili, L. G. Solution of boundary value problems of steady oscillations in the moment theory of elasticity for a half-plane with a circular aperture. (Russian. Georgian and English summaries) **82h:73003**
Solution of fundamental boundary value problems of the statics of the moment theory of elasticity for the half-space. (Russian. Georgian and English summaries) **82c:73006**
Grioli, Antonio Claudio Acceleration wave propagation in a Cosserat viscoelastic solid. (Italian) **82m:73005**
Kresin, G. I. On the essential norm of an integral operator of the double layer of the couple-stress theory of elasticity. (Russian. Georgian and English summaries) **82k:73006**
Sengupta, Pran Ranjan *See* **Acharya, Debipada, 82a:73003**
Škutin, L. I. Nonlinear models of deformable moment media. (Russian) **82f:73006**
Zanfir, Ştefan On the solution of elasticity for dipolar bodies. (Romanian. English summary) **82f:73007**
Zazašvili, Š. P. Solution of first boundary value problem of statics of the plane moment theory of elasticity for a concentric circular ring. (Russian. Georgian and English summaries) **82c:73007**

secondary classifications:

Gačečiladze, R. I. Some modified boundary-contact problems of statics of the classical and moment theory of elasticity. (Russian. Georgian and English summaries) **(82h:73077)**

73B30 Thermodynamics of solids [See also 73U05; for gases and fluids, see 80–XX.]

Bukatar', M. I. (*with* Lenjuk, M. P.) Random dynamic thermoelastic fields in a homogeneous space. (Russian) **82g:73004**
Ciarletta, M. (*with* Scalia, A.) On some relative problems concerning thermodynamic restrictions for hereditary materials. (Italian. English summary) **82d:73005**
Day, W. A. The inefficiency of certain periodic processes in linear thermoelasticity. **82g:73005**
Dokainish, M. A. *See* **Gadala, M. S.; et al., (***See* **82c:73005)**
Gadala, M. S. (*with* Dokainish, M. A.; Oravas, G. Ae.) Geometric and material nonlinearity problems—"Lagrangian and updated Lagrangian formulations". (*See* **82c:73005)**
Grinfel'd, M. A. On the thermodynamic stability of material. (Russian) **82a:73004**
Iannece, Donatella (*with* Romano, Antonio; Starita, Giulio) An approach to thermodynamics of materials with fading memory. **82d:73006**
Lenjuk, M. P. *See* **Bukatar', M. I., 82g:73004**
Morro, Angelo From microscopic to macroscopic reversibility. (Italian summary) **82f:73008**
Oravas, G. Ae. *See* **Gadala, M. S.; et al., (***See* **82c:73005)**
Paglietti, A. Can the theory of linear viscoelasticity be derived from the current thermodynamic theory of simple materials with fading memory? An objection. **82g:73006**
Romano, Antonio *See* **Iannece, Donatella; et al., 82d:73006**
Scalia, A. *See* **Ciarletta, M., 82d:73005**
Smirnov, V. N. Equations of generalized thermoelasticity of Cosserat medium. **82f:73009**
Starita, Giulio *See* **Iannece, Donatella; et al., 82d:73006**
Wallace, Duane C. Irreversible thermodynamics of flow in solids. **82j:73006a**
Flow process of weak shocks in solids. **82j:73006b**

secondary classifications:

Burčuladze, T. V. The mathematical theory of boundary value problems of thermodiffusion in deformable elastic solids. (Russian) **(82d:73085)**
Dobrulkin, V. A. Investigation of the problem on simultaneous thermal and mechanical shocks onto a composite finite rod. (Russian. English summary) **(82e:73018)**
El Mabrouk, Mongi Théorie spectrale et théorie de la diffusion en thermo-élasticité. (English summary) **(82c:47010)**
Fosdick, R. L. (*with* Straughan, Brian) Catastrophic instabilities and related results in a fluid of third grade. (German summary) **(82f:76003)**
Iglesias, P. Essai de "thermodynamique rationnelle" des milieux continus. (English summary) **(82d:83038)**
Morro, Angelo Acceleration waves in thermoviscous fluids. **(82h:76007)**
Straughan, Brian *See* **Fosdick, R. L., (82f:76003)**
Wang, Hong Gang The fundamental equations in the solution of a plane thermoelasticity problem by the finite element method. (Chinese. English summary) **(82e:73088)**
Woods, L. C. On the local form of the second law of thermodynamics in continuum mechanics. **(82j:80001)**

73B35 Random materials

Fokin, A. G. Statistical properties of inhomogeneous solid media: central moment functions of material characteristics. **82g:73007**

secondary classifications:

Bukatar', M. I. (*with* Lenjuk, M. P.) Random dynamic thermoelastic fields in a homogeneous space. (Russian) **(82g:73004)**
Lenjuk, M. P. *See* **Bukatar', M. I., (82g:73004)**

73B99 None of the above, but in this section

Banfi, Carlo (*with* Fabrizio, Mauro) On the concept of subbody in continuum mechanics. (Italian. English summary) **82g:73008**
Borş, C. I. On nonlocal elastic continua. **82a:73005**
Brusencova, Ē. O. (*with* Kil'čevs'kiĭ, M. O.) Quasicanonical equations of Hamiltonian continuum mechanics. (Russian. English summary) **82d:73007**
Canfield, Thomas R. *See* **Wu, Chien H., 82h:73003**
Derski, Włodzimierz (*with* Kowalski, Stefan J.) On the motion and mass continuity equations in a porous fluid-saturated medium. (French and Russian summaries) **82i:73005**
Epstein, Marcelo (*with* Segev, Reuven) Differentiable manifolds and the principle of virtual work in continuum mechanics. **82d:73008**
Fabrizio, Mauro *See* **Banfi, Carlo, 82g:73008**
Kil'čevs'kiĭ, M. O. *See* **Brusencova, Ē. O., 82d:73007**
Kowalski, Stefan J. *See* **Derski, Włodzimierz, 82i:73005**
Léné, Françoise Problème d'homogénéisation avec glissement visqueux. (English summary) [Homogenization problem with viscous slip] **82m:73006**
Martynenko, M. D. (*with* Šipka, Ĭ. G.; Svirskiĭ, E. A.) General representation of the solutions of static equations of the moment theory of elasticity. (Russian. English summary) **82e:73008**
Mokrik, R. I. (*with* Pir'ev, Ju. O.) Some questions of the theory of coupled fields in continuum mechanics. (Russian. English summary) **82i:73004**
Oevel, W. (*with* Schröter, J.) On the asymmetry of the stress tensor of materials with internal degrees of freedom. **82d:73009**
Parry, Gareth P. On phase transitions involving internal strain. **82e:73009**
Pir'ev, Ju. O. *See* **Mokrik, R. Ĭ., 82i:73004**
Rogula, Dominik (*with* Sztyren, Małgorzata) On one-dimensional models in nonlocal elasticity. **82h:73004**
Schröter, J. *See* **Oevel, W., 82d:73009**
Segev, Reuven *See* **Epstein, Marcelo, 82d:73008**
Šipka, Ĭ. G. *See* **Martynenko, M. D.; et al., 82e:73008**
Šťastna, J. *See* **Vodák, F., 82e:73010**
Suquet, Pierre-M. Sur l'homogénéisation de la loi de comportement d'une classe de matériaux dissipatifs non linéaires. (English summary) **82a:73006**
Svirskiĭ, E. A. *See* **Martynenko, M. D.; et al., 82e:73008**
Sztyren, Małgorzata *See* **Rogula, Dominik, 82h:73004**
Vodák, F. (*with* Šťastna, J.) Material constants of a mixture. **82e:73010**
Woźniak, Czesław Analytical mechanics of elastic media. (*See* **82j:73002)**
Physical and numerical discretizations in the mechanics of structures. (Polish. English and Russian summaries) **82e:73011**
Woźniak, Małgorzata Balance equations and conservation laws for multiconstituent porous media. (Polish. Russian and English summaries) **82d:73010**
Wu, Chien H. (*with* Canfield, Thomas R.) Wrinkling in finite plane-stress theory. **82h:73003**

secondary classifications:

Blehman, I. I. Development of the conception of direct separation of motions in nonlinear mechanics. (Russian) **(82f:70012)**
Burčuladze, T. V. Boundary value problems of elastothermal diffusion solved in quadratures. (Russian. Georgian and English summaries) **(82j:73070)**
Cypkin, A. G. *See* **Sedov, L. I., (82h:73076)**
Date, T. H. *See* **Radhakrishna, L.; et al., (82m:83028)**
Frémond, Michel (*with* Friaâ, Ahmed; Raupp, Marco A.) Analyse limite d'un circuit RLC. Analogie mécanique. (English summary) [Limit analysis of an RLC circuit. Mechanical analogy] **(82m:94046)**
Friaâ, Ahmed *See* **Frémond, Michel; et al., (82m:94046)**
Katkar, L. N. *See* **Radhakrishna, L.; et al., (82m:83028)**
Kopisz, Małgorzata Space-time coordinate transformations in continuum mechanics. Invariable equations of thermomechanics. (Russian summary) **(82i:73050)**

Oevel, W. (*with* Schröter, J.) Balance equations for micromorphic materials. **(82m:82013)**
Radhakrishna, L. (*with* Katkar, L. N.; Date, T. H.) Jaumann transport in relativistic continuum mechanics. **(82m:83028)**
Rapp, Marco A. *See* **Frémond, Michel; et al., (82m:94046)**
Schröter, J. *See* **Oevel, W., (82m:82013)**
Sedov, L. I. (*with* Cypkin, A. G.) On the construction of models of continuous media interacting with an electromagnetic field. **(82h:73076)**
Woźniak, Czesław Nonstandard analysis and material systems in mechanics. I, II. (Russian summary) **(82m:73002)**

73Cxx Elasticity {For the biharmonic equation, see 31A30, 31B30; for acoustics, see 76Q05.}

secondary classifications:

Clements, David L. ★Boundary value problems governed by second order elliptic systems. **(82k:35039)**
Konovalov, A. N. ★Решение задач теории упругости в напряжениях. (Russian) [Solution of problems of the theory of elasticity in stresses] **(82c:73003)**
Parton, V. Z. (*with* Perlin, P. I.) ★Методы математической теории упругости. (Russian) [Methods of the mathematical theory of elasticity] **(82i:73002)**
Perlin, P. I. *See* **Parton, V. Z., (82i:73002)**

73C02 Classical linear elasticity

Aguf, E. I. (*with* Vasil'ev, V. Z.) First fundamental problem for a layer with a circular hole. **82i:73006**
Barta, J. Lower and upper bounds for the torsional rigidity of an elastic prismatical bar whose ends are rigid. **82h:73005**
Christiansen, Søren An investigation of an integral equation method for determination of the shearing stress in Saint-Venant torsion. **82h:73006**
Hartmann, Friedel The Somigliana identity on piecewise smooth surfaces. (German summary) **82k:73007**
Kalandija, A. I. Plane problem of elasticity theory in a multiconnected domain. **82h:73004**
Kiričenko, A. M. *See* **Podil'čuk, Ju. N., 82m:73007**
Mihailov, V. N. Plane problem of the theory of elasticity in multiply-connected domains with cyclic and mirror symmetry. **82h:73005**
Podil'čuk, Ju. N. (*with* Kiričenko, A. M.) Elastic deformation of a one-sheeted hyperboloid with given displacements on the boundary. (Ukrainian. English and Russian summaries) **82m:73007**
Šerman, D. I. One particular Dirichlet problem for a doubly connected region whose boundaries are extremely close together in a narrow zone. **82f:73010**
Svanadze, M. Ž. Asymptotic estimates for integrals of potential type on infinite manifolds. (Russian. Georgian and English summaries) **82e:73012**
Ton Tran Cong Notes on some relationships between the Galerkin, Papkovich-Neuber and Naghdi-Hsu solutions in linear elasticity. **82k:73008**
Vasil'ev, V. Z. *See* **Aguf, E. I., 82i:73006**
Wilkes, N. S. On the nonexistence of semigroups for some equations of continuum mechanics. **82e:73013**

secondary classifications:

Kondrat'ev, V. A. (*with* Kopáček, Jiří; Oleĭnik, O. A.) Estimates of solutions of second-order elliptic equations and systems of elasticity theory in the neighborhood of a boundary point. (Russian) **(82m:35036)**
Kopáček, Jiří *See* **Kondrat'ev, V. A.; et al., (82m:35036)**
Oleĭnik, O. A. *See* **Kondrat'ev, V. A.; et al., (82m:35036)**

73C03 Complex variable techniques

Ahundov, M. B. *See* **Amenzade, Ju. A., 82h:73006**
Amenzade, Ju. A. (*with* Ahundov, M. B.) Elastic equilibrium of an anisotropic strip that is rigidly fastened to an anisotropic half plane of another material. (Russian. Azerbaijani and English summaries) **82h:73006**
Bardzokas, D. *See* **Theocaris, P. S., 82g:73009**
Bhattacharya, P. K. (*with* Symm, G. T.) A novel formulation and solution of the plane elastostatic displacement problem. **82c:73008**
Cai, Hai Tao The problem of periodic contact in the plane theory of elasticity. (Chinese) **82h:73007**
Čigarev, V. N. Solution of some problems of elasticity theory by the uniformization method. (Russian. English summary) **82e:73014**
Élendieva, S. A. Elastic equilibrium of a circular disc that is weakened by a symmetrically ordered elliptic aperture. (Russian. Azerbaijani and English summaries) **82i:73007**
Guz', O. M. Complex potentials of the planar linearized problem of elasticity theory. **82k:73009**
Prusov, I. A. (*with* Vasilevič, Ju. V.) A variant of the representation of general formulas of the theory of elasticity of an orthotropic body. (Russian) **82k:73010**
el-Sirafy, Ibrahim H. Problem of a circular annular elastic plate for which normal stress and tangential displacement are given on the boundary. **82h:73008**
Symm, G. T. *See* **Bhattacharya, P. K., 82c:73008**
Theocaris, P. S. (*with* Bardzokas, D.) Stresses and displacements on the boundary of a hole in the infinite plane. (German summary) **82g:73009**
Vasilevič, Ju. V. *See* **Prusov, I. A., 82k:73010**

secondary classifications:

(Amaranath, T.) *See* **Jaswon, M. A.; et al., (82m:31010)**
Dal', Ju. M. Plane problems of the theory of cracks, solvable by means of an analytic function. (Russian) **(82b:73048)**
Jaswon, M. A. (*with* Shidfar, A.) On a differential equation of Bergman and Schiffer. **(82m:31010)**
(Nigam, S. D.) *See* **Jaswon, M. A.; et al., (82m:31010)**
Pen'kov, V. B. *See* **Tolokonnikov, L. A., (82h:30048)**
Šerman, D. I. One particular Dirichlet problem for a doubly connected region whose boundaries are extremely close together in a narrow zone. **(82f:73010)**
Shidfar, A. *See* **Jaswon, M. A., (82m:31010)**
Tolokonnikov, L. A. (*with* Pen'kov, V. B.) Application of the Riemann boundary value problem with a discontinuous matrix coefficient to mechanics. (Russian) **(82h:30048)**

73C05 Stress functions

Cihistavi, G. V. Deformation of "curvilinearly conic" isotropic bodies with end loading. (Russian) **82j:73007**
Dempsey, J. P. The wedge subjected to tractions: a paradox resolved. **82e:73015**
Ermakov, B. E. *See* **Gulik, B. I., 82a:73007**
Golotina, L. A. (*with* Kolčanova, E. A.; Miljakova, L. V.) Application of the finite difference method to the solution of a two-dimensional problem of the theory of elasticity. (Russian) **82h:73007**
Gregory, R. D. The traction boundary value problem for the elastostatic semi-infinite strip; existence of solution, and completeness of the Papkovich-Fadle eigenfunctions. **82c:73009**
Gulik, B. I. (*with* Ermakov, B. E.) Action of moments on infinite multiply connected strip. **82a:73007**
Kolčanova, E. A. *See* **Golotina, L. A.; et al., 82h:73007**
Miljakova, L. V. *See* **Golotina, L. A.; et al., 82h:73007**

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Lee, Y. S. (*with* Smith, L. C.) An analysis of power law viscous materials under a plane-strain condition using complex stream and stress functions. **(82i:73021)**
Obolašvili, E. I. Some generalizations of the plane theory of elasticity and their relation to the shell theory. **(82d:73068)**
Simmonds, James G. Six different stress functions for membranes of revolution. **(82a:73034)**
Smith, L. C. *See* **Lee, Y. S., (82i:73021)**

73C10 Saint-Venant's principle

Berdičevskiĭ, V. L. Energy methods in certain problems of damping of solutions. **82g:73010**
Biollay, Yves First boundary value problem in elasticity: bounds for the displacements and Saint-Venant's principle. (French summary) **82e:73016**
Hatiašvili, G. M. (*with* Kahaja, K. V.) Deformation of cylindrical bodies with a slightly curved axis. (Russian) **82e:73053**
Huang, Cheng Gui A note on Saint-Venant's principle. (Chinese. English summary) **82i:73008**
Iosif'jan, G. A. *See* **Oleĭnik, O. A.; et al., 82c:73010**
Kahaja, K. V. *See* **Hatiašvili, G. M., 82e:73053**
Oleĭnik, O. A. (*with* Iosif'jan, G. A.; Tavhelidze, I. N.) The behavior of the solutions of the plane theory of elasticity in the neighborhood of irregular points of the boundary and at infinity. (Russian) **82c:73010**
Tavhelidze, I. N. *See* **Oleĭnik, O. A.; et al., 82c:73010**

secondary classifications:

Caviglia, Giacomo (*with* Zordan, Clara) Integrability conditions for the relative velocity gradient in relativistic continuum mechanics. (Italian summary) **(82a:83032)**
Christiansen, Søren An investigation of an integral equation method for determination of the shearing stress in Saint-Venant torsion. **(82h:73006)**
Deshwal, P. S. Torsion of a parabolic cylinder. **(82i:73029)**
Horgan, C. O. (*with* Knowles, James K.) The effect of nonlinearity on a principle of Saint-Venant type. **(82h:73041)**
Kahaja, K. V. Saint-Venant problems for homogeneous naturally twisted isotropic beams. (Russian) **(82e:73054)**
Knowles, James K. *See* **Horgan, C. O., (82h:73041)**
Kopáček, Jiří (*with* Oleĭnik, O. A.) Asymptotic properties of solutions of systems of equations in elasticity theory. (Russian) **(82a:35015)**
Oleĭnik, O. A. *See* **Kopáček, Jiří, (82a:35015)**
Zordan, Clara *See* **Caviglia, Giacomo, (82a:83032)**

73C15 Uniqueness theorems

Howell, Kenneth B. Uniqueness in linear elastostatics for problems involving unbounding unbounded bodies. **82c:73011**
Periodic and "slightly" periodic boundary value problems in elastostatics on bodies bounded in all but one direction. **82i:73009**
Kostenko, V. G. Uniqueness of the solution of a problem of interaction of a piecewise-smooth elastic shell with acoustic media. (Ukrainian. Russian summary) **82a:73008**
Shield, Richard T. On uniqueness for the traction boundary value problem of linear elastostatics. **82h:73008**

73C20 Strain energy methods

Bowman, B. F. Stretching the circular cylindrical elastic sheet. **82c:73012**
Brovko, G. L. Uniqueness theorem in the theory of small-curvature elastoplastic processes. (Russian. English summary) **82h:73009**

secondary classifications:

Rivlin, Ronald S. Some reflections on material stability. **(82h:73030)**

73C25 Thermal stress problems

Aderogba, K. The determination of thermal stresses in dissimilar media. **82c:73013**

Argyris, J. H. (*with* Doltsinis, J. St.) On the natural formulation and analysis of large deformation coupled thermomechanical problems. **82j:73008**

Doltsinis, J. St. *See* **Argyris, J. H., 82j:73008**

Jacquin, Claude Sur la résolution explicite exacte dans $\mathbf{R}^n$ ($1 \leqslant n \leqslant 3$) des problèmes de thermoélasticité dynamique couplée en milieu homogène borné ou non; application au demi-plan. (English summary) [On the exact explicit solution in $\mathbf{R}^n$ ($1 \leqslant n \leqslant 3$) of coupled dynamic linear thermoelastic problems in a bounded or unbounded homogeneous medium; with application to the half plane] **82k:73011**

Jękot, Tomasz The thermoelastic potential and the existence of generalized solutions of the thermomechanics of shallow shells. (Polish. Russian and English summaries) **82f:73011**

Lenjuk, M. P. (*with* Šestopal, N. M.) Stressed state of a viscoelastic one-dimensional half space. (Ukrainian. English and Russian summaries) **82m:73008**

Šestopal, N. M. *See* **Lenjuk, M. P., 82m:73008**

Singh, Harinder Thermal stresses in an infinite cylinder. **82d:73011**

Val'kovskaja, V. I. The stress state of infinite plates with a circular aperture, heated along the edge, under the action of a temperature field that is random with respect to time. (Russian) **82h:73009**

Wawrzynek, Andrzej Variational formulation of a nonlinear problem of plate bending taking into account the effect of temperature. (Polish. Russian and English summaries) **82f:73012**

Generalization of Reissner's rule on geometrically nonlinear thermal elasticity. (Polish. Russian and English summaries) **82f:73013**

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Bulgaru, O. E. Thermoelastic stresses in an open cylindrical inhomogeneous shell. (Russian) **(82c:73085)**

Gur'janov, N. G. A circular plate subjected to thermal shock. (Russian) **(82a:73061)**

Korenev, B. G. ★Задачи теории теплопроводности и термоупругости. (Russian) [Problems of the theory of heat conductivity and thermoelasticity] **(82e:80004)**

Lakusta, K. V. Dynamic problem of thermoelasticity for a space with a symmetric inclusion. (Russian. English summary) **(82k:73014)**

Šaldyrvan, V. A. Three-dimensional thermoelasticity problems for transversally isotropic plates. **(82a:73064)**

Vasilevič, Ju. V. A plane mixed problem of thermoelasticity for a plane with a reinforced aperture. (Russian) **(82m:73012)**

73C30 Anisotropic bodies

Dhawan, G. K. An asymmetric mixed boundary value problem of a transversely isotropic half-space subjected to a moment by an annular rigid punch. **82j:73009**

Guz', O. M. Complex potentials of a two-dimensional linearized problem in elasticity theory (compressible bodies). **82a:73009**

Komarov, G. V. *See* **Prusov, I. A., 82m:73009**

Nicolae, V. *See* **Teodosiu, C., 82i:73010**

Prusov, I. A. (*with* Komarov, G. V.) A representation of general formulas of elasticity theory for a transversally isotropic subspace. (Russian. English summary) **82m:73009**

Ruhadze, Ž. A. Static equilibrium of an infinite anisotropic strip with stresses given on the boundary. (Russian. Georgian and English summaries) **82b:73010**

Teodosiu, C. (*with* Nicolae, V.) On the generalized plane strain of an anisotropic elastic body. **82i:73010**

Ting, T. C. T. Effects of change of reference coordinates on the stress analyses of anisotropic elastic materials. **82m:73010**

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Lehnickiĭ, S. G. ★Theory of elasticity of an anisotropic body. **(82d:73001)**

Neittaanmäki, Pekka Dirichletsche und Neumannsche Randwertaufgaben in der statischen Elastizitätstheorie. **(82m:35044)**

Payton, Robert G. Epicenter and epicentral-axis motion of a transversely isotropic elastic half-space. **(82j:73025)**

Senašov, S. I. Exact three-dimensional solutions of equations describing plastic flow of anisotropic and inhomogeneous media. (Russian) **(82h:73027)**

73C35 Mixed boundary value problems [See also 45F05.]

Andreĭkiv, A. E. *See* **Panasjuk, V. V.; et al., 82e:73018**

Berkovič, V. N. On a theory for a class of integral equations that arise in mixed problems of elasticity. (Russian) **82j:73010**

Bicadze, L. P. (*with* Zviadadze, T. Ja.) The solution of basic boundary value problems of the statics of the transversal-isotropic half-space. (Russian. Georgian and English summaries) **82c:73014**

Borrelli, Alessandra (*with* Patria, Maria Cristina) Some results in the dynamics of inextensible elastic solids. (Italian. English summary) **82f:73014**

Černyĭ, I. V. *See* **Kapšivĭi, O. O., 82e:73017**

Dubeckiĭ, S. A. *See* **Panasjuk, V. V.; et al., 82e:73018**

Džagmaidze, A. Ja. *See* **Natrošvili, D. G., 82g:73011**

Haddow, J. B. *See* **Singh, Brij M.; et al., 82h:73011**

Hagen, Roland Über den Index eines Operators aus der Elastizitätstheorie. **82k:73012**

Kac, M. L. *See* **Zonenašvili, I. A., 82b:73012**

Kapšivĭi, O. O. (*with* Černyĭ, I. V.) First fundamental axisymmetric problem for an elastic space with a system of coaxial annular cuts. (Russian. English summary) **82e:73017**

Miletic, J. A finite Laplace transform method for the solution of a mixed boundary value problem in the theory of elasticity. **82d:73012**

Moodie, T. Bryant *See* **Singh, Brij M.; et al., 82h:73011**

Natrošvili, D. G. (*with* Džagmaidze, A. Ja.) Solution of fundamental dynamical problems of the moment theory of elasticity for the sphere and the spherical layer. (Russian. Georgian and English summaries) **82g:73011**

Panasjuk, V. V. (*with* Andreĭkiv, A. E.; Dubeckiĭ, S. A.) A mixed problem of elasticity theory for a half-space with several piecewise-smooth lines of separation of boundary conditions. (Russian. English summary) **82e:73018**

Patria, Maria Cristina *See* **Borrelli, Alessandra, 82f:73014**

Poručikov, V. B. Solution of dynamic problems of the theory of elasticity for wedge-like regions with mixed boundary conditions. **82h:73010**

Singh, Brij M. (*with* Moodie, T. Bryant; Haddow, J. B.) Torsion by an annular disk of an infinite cylinder embedded in an elastic half-space. **82b:73011**

Sugiura, Katsuo A mixed problem for an infinite elastic medium containing a circular inclusion and a circular hole. **82f:73015**

Tereščenko, V. Ja. Method of orthogonal expansions on the domain boundary in three-dimensional problems of the linear theory of elasticity. **82g:73012**

Travkin, Ju. I. A method for solving a mixed problem of elasticity theory for a strip. **82a:73010**

Wang, Min Zhong On the solutions for several boundary value problems in half space elasticity. (Chinese. English summary) **82k:73013**

Zonenašvili, I. A. (*with* Kac, M. L.) The collocation method in the plane problem of elasticity theory. (Russian. Georgian and English summaries) **82b:73012**

Zviadadze, T. Ja. *See* **Bicadze, L. P., 82c:73014**

secondary classifications:

Baldino, R. R. Integral equations for mixed problems: Laplacian and linear elasticity operators. **(82a:35030)**

Bežnašvili, Ju. A. *See* **Burčuladze, T. V., (82k:73078)**

Burčuladze, T. V. (*with* Bežnašvili, Ju. A.) Three-dimensional dynamic problems of the conjugate theory of thermoelastic diffusion. (Russian) **(82k:73078)**

Dobordžginidze, L. G. A functional equation of the nonlinear theory of elasticity. (Russian) **(82j:73012)**

Dolgova, I. M. (*with* Mel'nikov, Ju. A.) Construction of Green's functions and matrices for equations and systems of the elliptic type. **(82f:35034)**

Ėfendieva, S. A. Elastic equilibrium of a circular disc that is weakened by a symmetrically ordered elliptic aperture. (Russian. Azerbaijani and English summaries) **(82i:73007)**

Fan, Tian You Dual integral equations and systems of dual integral equations and their applications in solid mechanics and fluid mechanics. (Chinese) **(82m:45011)**

Mel'nikov, Ju. A. *See* **Dolgova, I. M., (82f:35034)**

Popov, G. Ja. On expansion of the possibilities of the integral transformation method in solving problems of mechanics. **(82g:44001)**

Šerman, D. I. On some types of singular integral equations occurring in applications. **(82i:45003)**

73C40 Nonhomogeneous bodies and inclusions

Abdullaev, U. Effect of normal stress on a half plane. (Russian) **82h:73013**

Babaev, M. A. (*with* Salmanov, V. S.) Conformal transformation of a plane stress state taking account of physical nonlinearity. (Russian. Azerbaijani and English summaries) **82m:73011**

Bašeleišvili, M. O. (*with* Giorgašvili, L. G.; Zazašvili, Š. P.) Effective solution of some contact boundary problems of statics for composite isotropic bodies. (Russian. Georgian and English summaries) **82a:73011**

Chevalier, Yvon Application des contraintes et des déformations de polarisation à l'étude des milieux composites. I. Formulation générale. (English summary) **82i:73011**

Giorgašvili, L. G. *See* **Bašeleišvili, M. O.; et al., 82a:73011**

Gribnjak, S. T. *See* **Popov, G. Ja., 82h:73012**

Guz', O. M. Implementation of variational methods in linear problems of mechanics in multiply connected domains. (Russian. English summary) **82h:73011**

Kogan, B. M. Application of the Bubnov-Galerkin method to the investigation of stress distribution around openings in nonhomogeneous bodies. (Russian) **82e:73019**

Krüger, K.-H. Die Behandlung ebener Rißprobleme mittels singulärer Integralgleichungen. **82b:73014**

Lakusta, K. V. Dynamic problem of thermoelasticity for a space with a symmetric inclusion. (Russian. English summary) **82k:73014**

Mignot, Fulbert (*with* Puel, Jean-Pierre; Suquet, Pierre-M.) Flambage des plaques élastiques multiperforées. **82f:73016**

Nazarov, S. A. (*with* Semenov, B. N.) The connection between stress factors for a plane problem of classical and couple-stress elasticity theory. (Russian) **82g:73013**

Olemskoi, A. I. Elastic energy of an inhomogeneous solid solution. I. (Russian) **82d:73013**

Ostrosablin, N. I. Uniformly stable opening in a plate in a nonhomogeneous stressed state. (Russian) **82k:73015**

Paşa, Gelu I. (*with* Polişevschi, Dan A.) The macroscopic behavior of a heterogeneous elastic medium. (Romanian. English summary) **82j:73011**

Pipkin, A. C. *See* **Rogers, T. G., 82c:73015**

Polişevschi, Dan A. *See* **Paşa, Gelu I., 82j:73011**

Popov, G. Ja. (*with* Gribnjak, S. T.) Solving problems in mechanics for layered media. **82h:73012**

Puel, Jean-Pierre *See* **Mignot, Fulbert; et al., 82f:73016**

Rogers, T. G. (*with* Pipkin, A. C.) Holes in inextensible networks. **82c:73015**

Ruščic'kiĭ, Ja. Ja. General representations of the solutions to the equations in the linear theory of mixtures of elastic materials. **82e:73020**

Salmanov, V. S. *See* **Babaev, M. A., 82m:73011**

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Suquet, Pierre-M. *See* **Mignot, Fulbert; et al., 82f:73016**

Tanaka, Kikuaki *See* **Tanaka, Masataka, 82h:73013**

Tanaka, Masataka (*with* Tanaka, Kikuaki) On boundary-volume element discretization of inhomogeneous elastodynamic problems. **82h:73013**

Zazašvili, Š. P. *See* **Bašeleišvili, M. O.; et al., 82a:73011**

secondary classifications:

Aderogba, K. The determination of thermal stresses in dissimilar media. **(82c:73013)**
Bose, S. K. (*with* Debnath, Lokenath) On elastic waves in a medium with randomly distributed cylinders. **(82f:73022)**
Debnath, Lokenath *See* **Bose, S. K., (82f:73022)**
Naval, I. K. (*with* Rimskiĭ, V. K.) Elastic stress waves in an inhomogeneous layer. (Russian) **(82g:73020)**
Popov, G. Ja. On a method of solving mechanics problems for domains with slits or thin inclusions. **(82f:65129)**
Rao, C. R. A. Epstein profiles and the Riemann *P*-functions. **(82j:73026)**
Rimskiĭ, V. K. *See* **Naval, I. K., (82g:73020)**

73C45 Stress concentrations

Aleksandrov, A. Ja. (*with* Zinov'ev, B. M.; Kuršin, L. M.) One numerical method of solving problems of elasticity with allowance for singularities of the stressed state near corner points and lines. **82h:73014**
Dempsey, J. P. (*with* Sinclair, G. B.) On the singular behavior at the vertex of a bi-material wedge. **82h:73015**
Fujita, Teruaki (*with* Tsuchida, Eiichiro) On the stress concentration around a hemi-oblate spheroidal pit in a semi-infinite body. **82d:73014**
Ioakimidis, Nikolaos I. (*with* Theocaris, P. S.) The numerical evaluation of a class of generalized stress intensity factors by use of the Lobatto-Jacobi numerical integration rule. (French summary) **82c:73016**
Kunin, Isaak A. *See* **Wheeler, Lewis T., 82m:73013**
Kuršin, L. M. *See* **Aleksandrov, A. Ja.; et al., 82h:73014**
Rizzo, F. J. (*with* Shippy, D. J.) The boundary integral equation method with application to certain stress concentration problems in elasticity. **82h:73016**
Shippy, D. J. *See* **Rizzo, F. J., 82h:73016**
Sinclair, G. B. *See* **Dempsey, J. P., 82h:73015**
Theocaris, P. S. *See* **Ioakimidis, Nikolaos I., 82c:73016**
Tsuchida, Eiichiro *See* **Fujita, Teruaki, 82d:73014**
Vasilevič, Ju. V. A plane mixed problem of thermoelasticity for a plane with a reinforced aperture. (Russian) **82m:73012**
Wheeler, Lewis T. (*with* Kunin, Isaak A.) On voids of minimum stress concentration. **82m:73013**
Zinov'ev, B. M. *See* **Aleksandrov, A. Ja.; et al., 82h:73014**

secondary classifications:

Mstczyński, M. Stress concentrations in a nonhomogeneous elastic layer weakened by cracks. (Polish and Russian summaries) **(82e:73074)**

73C50 Nonlinear elasticity

Atanacković, T. M. A stationarity principle for simple elastic materials. **82e:73021**
Atluri, Satya N. On some new general and complementary energy theorems for the rate problems in finite strain, classical elastoplasticity. **82h:73017a**
Addendum: "On some new general and complementary energy theorems for the rate problems in finite strain, classical elastoplasticity". **82h:73017b**
Atteia, M. (*with* Dedieu, J. P.) Minimization of energy in nonlinear elasticity. **82k:73016**
Berdičevskiĭ, V. L. (*with* Misjura, V. A.) On a dual variational principle in geometrically nonlinear elasticity theory. **82g:73014**
Bondar', V. D. Plane deformation of an incompressible material in nonlinear elasticity theory. (Russian) **82f:73017**
Clements, David L. (*with* Jones, Oscar A. C.) The boundary integral equation method for the solution of a class of problems in anisotropic elasticity. **82h:73018**
Dedieu, J. P. *See* **Atteia, M., 82k:73016**
Dobordžginidze, L. G. A functional equation of the nonlinear theory of elasticity. (Russian) **82j:73012**
Forte, S. On certain kinds of elastic potential. (Italian. English summary) **82e:73022**
Grigoljuk, È. I. (*with* Šalašilin, V. I.) Some forms of the method of extension by parameter in nonlinear problems of elasticity theory. (Russian) **82d:73015**
Guo, Zhong Heng The unified theory of variational principles in nonlinear elasticity. (Polish and Russian summaries) **82j:73013**
Einheitliche Theorie der Variationsprinzipien in der nichtlinearen Elastizität. **82m:73014**
Jones, Oscar A. C. *See* **Clements, David L., 82h:73018**
Knowles, James K. Universal states of finite anti-plane shear: Ericksen's problem in miniature. **82f:73018**
Kuz'menko, V. I. On the variational method in the theory of contact problems for nonlinearly elastic laminated bodies. **82k:73017**
Lur'e, A. I. ★Нелинейная теория упругости. (Russian) [Nonlinear theory of elasticity] **82e:73023**
Manacorda, Tristano Topics in elastodynamics. (*See* **82j:73002**)
Misjura, V. A. *See* **Berdičevskiĭ, V. L., 82g:73014**
Muncaster, R. G. Saint-Venant's problem in nonlinear elasticity: a study of cross sections. **82e:73024**
Oden, J. T. Finite element methods for a class of nonlinear boundary value problems in finite elasticity. **82h:73015**
Panagiotopoulos, P. D. Dynamic and incremental variational inequality principles, differential inclusions and their applications to co-existent phases problems. (German summary) **82j:73014**
Planat, Michel *See* **Theobald, Geneviève, 82d:73016**
Rannacher, R. On finite element approximation of general boundary value problems in nonlinear elasticity. **82f:73019**
Šalašilin, V. I. *See* **Grigoljuk, È. I., 82d:73015**
Sburlan, Silviu Variational inequalities in finite elastostatics. **82j:73015**
Sujunškaliev, N. H. A problem of the theory of elasticity of finite deformations (exact solution). (Russian) **82h:73016**
Theobald, Geneviève (*with* Planat, Michel) Phénomènes non linéaires dans les dispositifs élastiques à forte puissance. (English summary) **82d:73016**
Washizu, Kyuichiro A note on the principle of stationary complementary energy in nonlinear elasticity. **82a:73012**
Weinitschke, H. J. On axisymmetric deformations of nonlinear elastic membranes. **82a:73013**
Włodarczyk, E. General closed-form solutions of the equations of one-dimensional nonstationary isentropic motions of isotropic elastic media subject to finite deformations. (Polish and Russian summaries) **82k:73018**
Wójcik, Robert The method of elastic solutions in boundary value problems of the theory of torsion of physically nonlinear rods. (Polish. Russian and English summaries) **82f:73020**

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Bensoussan, Alain Homogenization theory. **(82a:35013)**
Casey, J. (*with* Naghdi, P. M.) An invariant infinitesimal theory of motions superposed on a given motion. **(82k:73005)**
Gallo, Angela *See* **Nania, Luciana, (82b:49013)**
Gurvič, E. L. (*with* Lur'e, A. I.) On the theory of wave propagation in a nonlinear-elastic medium (effective checking of Hadamard condition). **(82i:73013)**
Lur'e, A. I. *See* **Gurvič, E. L., (82i:73013)**
Naghdi, P. M. *See* **Casey, J., (82k:73005)**
Nania, Luciana (*with* Gallo, Angela) A unilateral connection problem for the supported beam. (Italian. English summary) **(82b:49013)**
Portnov, V. R. The minimum of functionals containing differential operators. (Russian) **(82m:49007)**
Škutin, L. I. Nonlinear models of deformable moment media. (Russian) **(82f:73006)**
Suquet, Pierre-M. Une méthode duale en homogénéisation. Application aux milieux élastiques périodiques. (English summary) **(82h:73018)**
Vil'ke, V. G On stability of nonlinear oscillations of a membrane. **(82g:73034)**
(Wesolowski, Zbigniew) *See* **Nonlinear dynamics of elastic bodies, (82j:73002)**
Nonlinear dynamics of elastic bodies ★Nonlinear dynamics of elastic bodies. **(82j:73002)**

73C60 Variational methods [See also 35J85, 35K85, 35L85, 49A29.]

Borrelli, Alessandra (*with* Patria, Maria Cristina) Variational principles of the mechanics of inextensible elastic solids. (Italian. English summary) **82m:73015**
Patria, Maria Cristina *See* **Borrelli, Alessandra, 82m:73015**
Tereščenko, V. Ja. On the convex functionals analogous to the generalized Trefftz functionals in variational problems of the theory of elasticity. **82h:73019**

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Atanacković, T. M. Variational principles for column buckling. **(82h:73044)**
Germain, Paul Comments on: "Duality and relaxation in the variational problems of plasticity" [J. Mécanique **19** (1980), no. 3, 493–527] by R. Temam and G. Strang. (French summary) **(82i:73017b)**
Guz', O. M. Implementation of variational methods in linear problems of mechanics in multiply connected domains. (Russian. English summary) **(82h:73011)**
Strang, Gilbert *See* **Temam, Roger, (82i:73017a)** *and* **Germain, Paul, (82i:73017b)**
Temam, Roger (*with* Strang, Gilbert) Duality and relaxation in the variational problems of plasticity. (French summary) **(82i:73017a)**
See also **Germain, Paul, (82i:73017b)**

73C99 None of the above, but in this section

Alëšina, S. A. *See* **Musalimov, V. M., 82h:73026**
Andrianov, N. F. On the numerical solution of space problems of elasticity theory for rotating bodies. (Russian. Georgian and English summaries) **82e:73025**
Arutjunjan, N. H. (*with* Šoĭhet, B. A.) Asymptotic behavior of the solution to a boundary value problem of the creep theory for inhomogeneous aging bodies with one-sided bonds. (Russian) **82h:73020**
Borodačev, A. N. On the solution of boundary value problems of the theory of elasticity for an elliptical disc. (Russian) **82m:73016**
Daragan, V. I. *See* **Sačenkov, A. V., 82e:73030**
Day, W. A. On the growth of the stress in a cylinder. **82a:73014**
Duvaut, Georges Élasticité avec frottement visqueux. Cas linéaire. (English summary) **82h:73021**
Dvornikov, V. A. Some energy aspects of the theory of elasticity and plasticity. (Russian) **82h:73022**
Edelen, Dominic G. B. Aspects of variational arguments in the theory of elasticity: fact and folklore. **82e:73026**
Gladwell, G. M. L. An inverse problem in elastostatics. **82m:73017**
Heise, Ulrich *See* **Müller, C. Harald, 82c:73017**
Hervás Burgos, Pablo Differential forms in linear deformation. (Spanish) **82e:73027**
Heuer, Hans Die numerische Lösung einer Randwertaufgabe der Elastizitätstheorie mit gemischten Randbedingungen. **82h:73023**
Kapšivīĭ, O. O. (*with* Kopistira, M. P.; Lomonos, L. N.) Axially symmetric stressed state of a sphere with a nonconcentric spherical cavity. (Russian. English summary) **82e:73028**
Kjazimova, R. A. The secondary effects of twisting of elliptic shafts. (Russian. Azerbaijani and English summaries) **82h:73024**
Kopistira, M. P. *See* **Kapšivīĭ, O. O.; et al., 82e:73028**
Lomonos, L. N. *See* **Kapšivīĭ, O. O.; et al., 82e:73028**
Lu, Jian Ke A remark on plane elasticity with periodic stresses. (Chinese. English summary) **82h:73025**
Mróz, Zenon On optimal force action and reaction on structures. (*See* **82g:93003**)
Müller, C. Harald (*with* Heise, Ulrich) Numerical calculation of eigenvalues of integral operators for plane elastostatic boundary value problems. **82c:73017**

Musalimov, V. M. (*with* Alëšina, S. A.) Group analysis of a plane model of an elastic medium. (Russian) **82h:73026**

Nečas, Jindřich Variational inequalities in elasticity and plasticity with application to Signorini's problems and to flow theory of plasticity. **82h:73027**

Orljuk, E. I. Functional equations of an axially symmetric problem of the theory of elasticity for a spherical lune and their solutions. (Russian. English summary) **82e:73029**

Portela, Artur Theoretical basis of boundary solutions for the linear theory of structures. **82h:73017**

Rokva, Ž. P. A method for the numerical solution of certain problems of plane elasticity theory. (Russian. Georgian and English summaries) **82a:73015**

Rostamian, Rouben Internal constraints in linear elasticity. **82j:73016**

Sačenkov, A. V. (*with* Daragan, V. I.) On the solution of a three-dimensional problem of elasticity theory for a layer of constant thickness in trigonometric series. (Russian) **82e:73030**

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Suquet, Pierre-M. Une méthode duale en homogénéisation. Application aux milieux élastiques périodiques. (English summary) **82h:73018**

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Binz, E. Two natural metrics and their covariant derivatives on a manifold of embeddings. **(82h:58011)**

Bugrov, A. N. (*with* Konovalov, A. N.; Kramarenko, V. I.) The method of fictitious regions in elliptical problems with different types of boundary conditions. **(82h:65151)**

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Fichera, Gaetano Mathematical theory of "points effect" in electricity conducting surfaces. (Italian summary) **(82j:78003)**

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Friedman, Avner (*with* Pozzi, Gianni A.) The free boundary for elastic-plastic torsion problems. **(82i:35165)**

Galimov, K. Z. (*with* Nemcev, E. A.) Some mathematical aspects of the theory of shells. (Russian) **(82k:73063a)**

(*with* Nemcev, E. A.) Some mathematical aspects of the theory of shells. II. (Russian) **(82k:73063b)**

Gamidov, V. S. *See* **Agaev, G. N., (82e:65105)**

Gaveau, Bernard (*with* Malliavin, Paul) Courbure des surfaces de niveau des fonctions holomorphes bournées dans la boule. (English summary) [Curvature of level surfaces of bounded holomorphic functions in the ball] **(82m:32005)**

Guz', O. M. Complex potentials of a two-dimensional linearized problem in elasticity theory (compressible bodies). **(82a:73009)**

Hartmann, Friedel The derivation of stiffness matrices from integral equations. **(82m:65125)**

Heise, Ulrich Comparison of round-off errors in integral equation formulations of elastostatical boundary value problems. **(82k:65082)**

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Kramarenko, V. I. *See* **Bugrov, A. N.; et al., (82h:65151)**

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Merkin, D. R. ★Введение в механику гибкой нити. (Russian) [Introduction to the mechanics of a flexible filament] **(82f:73002)**

Mignot, A. L. (*with* Surry, C.) A mixed finite element family in plane elasticity. **(82m:73055)**

Naghdi, A. K. Closed form eigenfunctions of Laplace's equation in multiply connected regions and applications. **(82b:35043)**

Naghdi, P. M. *See* **Casey, J., (82k:73005)**

Nemcev, E. A. *See* **Galimov, K. Z., (82k:73063a)** *and* **Galimov, K. Z., (82k:73063b)**

Oden, J. T. Penalty-finite element approximations of unilateral problems in elasticity. **(82e:65065)**

Pozzi, Gianni A. *See* **Friedman, Avner, (82i:35165)**

Richter, Gerard R. An integral equation method for the biharmonic equation. **(82h:65154)**

Stringa, Silvana The relativistic motion of elastic bodies. (Italian. English summary) **(82j:83004)**

Surry, C. *See* **Mignot, A. L., (82m:73055)**

73Dxx Wave propagation in and vibrations of solids

73D05 Impact and explosion problems [See also 76L05.]

Dobručkin, V. A. Investigation of the problem on simultaneous thermal and mechanical shocks onto a composite finite rod. (Russian. English summary) **82c:73018**

Gaiduk, S. I. On the solvability of some boundary value problems associated with the theory of a transversal shock along finite beams. (Russian) **82j:73017**

On some boundary value problems associated with the theory of transversal impact on a rectangular membrane. (Russian. English summary) **82g:73015**

Miyoshi, Tetsuhiko Elastic-plastic vibration of a rod. **82g:73016**

Naval, I. K. *See* **Rimskiĭ, V. K., 82k:73019**

Rimskiĭ, V. K. (*with* Naval, I. K.) Investigation of transient elastic waves in a layered bar. (Russian) **82k:73019**

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Jakovlev, V. Ja. Some numerical results in the problem of the impact of a liquid drop on a solid surface. (Russian) **(82e:76073)**

73D10 Integral transforms

Natrošvili, D. G. Solution of dynamic problems for the sphere. (Russian. Georgian and English summaries) **82j:73018**

73D15 Dilatational and shear waves

Banerjee, Snigdha Note on torsional vibration of a composite nonhomogeneous circular cylinder of finite length. **82m:73018**

Cepelev, N. V. *See* **Krauklis, P. V., (*See* 82k:86002)**

Gamby, D. (*with* Lamy, R.) Propagation d'ondes dispersives dans une poutre longue de section rectangulaire dont une extrémité est soumise à un choc. (English summary) **82c:73019**

Ghosh, S. K. Correction: "On the transient disturbance produced by a finite, spherical source in an infinite, elastic cylinder" [Indian J. Mech. Math. **16** (1978), no. 2, 29–44; MR 80m:73016]. **82m:73019**

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Lamy, R. *See* **Gamby, D., 82c:73019**

Olemskoĭ, A. I. On the theory of elastic waves. (Russian) **82e:73031**

Sinha, T. K. Propagation of Love waves in elastic layer of variable thickness resting on a rigid half space. **82j:73019**

Tjurikov, L. G. Calculation of geometric divergence for vertically inhomogeneous media and for media with spherical or cylindrical symmetry. (Russian) (*See* **82k:86002**)

secondary classifications:

Rivlin, Ronald S. Some reflections on material stability. **(82h:73030)**

73D20 Surface waves

Babič, V. M. (*with* Grigor'eva, N. S.) Space-time method of calculation of waves in a slightly inhomogeneous layered medium. (Russian. English summary) **82j:73020**

Currie, P. K. *See* **Taylor, David Burt, 82f:73021**

Grigor'eva, N. S. *See* **Babič, V. M., 82j:73020**

Taylor, David Burt (*with* Currie, P. K.) The secular equation for Rayleigh waves on elastic crystals. II. Corrections and additions. **82f:73021**

73D25 Wave diffraction and dispersion

Babramov, B. M. *See* **Usmanaliev, A., 82g:73018**

Datta, S. K. *See* **Viswanathan, K.; et al., 82m:73023**

Eatwell, G. P. (*with* Simmons, John A.; Willis, J. R.) A new representation for the dynamic Green's tensor of an elastic half-space or layered medium. **82m:73020**

Gamby, D. Applications and improvements of the summed progressing wave formalism. **82h:73019**

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Jones, D. S. Low-frequency scattering in elasticity. **82k:73022**

Kazi, M. H. Transmission, reflection and diffraction of Love waves in welded layered quarter-spaces with a plane surface (theoretical). **82d:73017**

Larsen, J. Diffraction of elastic waves by a rigid wedge. **82h:73028**

Martin, Paul Andrew Diffraction of elastic waves by a penny-shaped crack. **82k:73023**

Mihaĭlenko, B. G. *See* **Hron, F., 82k:73021**

Mishra, S. K. *See* **Rajhans, B. K., 82a:73016**

Mujumdar, Prabha *See* **Palaiya, R. M., 82h:73029**

Musgrave, M. J. P. (*with* Payton, Robert G.) Head wave contributions to elastic wave fields in a transversely isotropic half-space. **82g:73017**

Ozerov, D. K. A means of constructive interference for Love waves in an anisotropic medium. (Russian) (*See* **82k:86002**)

Palaiya, R. M. (*with* Mujumdar, Prabha) Shear wave interaction with a pair of interface strips. **82h:73029**

Payton, Robert G. *See* **Musgrave, M. J. P., 82g:73017**

Popov, M. M. A new method of computation of wave fields using Gaussian beams. **82m:73021**

Poručikov, V. B. Exact solutions of spatial problems of diffraction of plane elastic waves by a wedge. (Russian) **82h:73030**

Rajhans, B. K. (*with* Mishra, S. K.) Diffraction of impulsive elastic waves by a fluid cylinder. **82a:73016**

Sharma, J. P. *See* **Viswanathan, K.; et al., 82m:73023**

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Sinha, T. K. Correction: "Diffraction of a plane pulse due to a rigid quarter space upon an elastic half space" [Indian J. Mech. Math. **16** (1978), no. 2, 48–65; MR 80m:73023]. **82m:73022**

Sutyrin, V. G. On equations of the theory of springs. (Russian) **82e:73032**

Usmanaliev, A. (*with* Babramov, B. M.) Some problems for an elastic layer under the action of a pulsating transverse elastic wave. (Russian) **82g:73018**

Visscher, William M. Scattering of elastic waves from planar cracks in isotropic media. **82a:73017**

Viswanathan, K. (*with* Sharma, J. P.; Datta, S. K.) On the matched-asymptopic solution to the diffraction of a plane elastic wave by a semi-infinite stress-free boundary of finite width. **82m:73023**

Wickham, G. R. The diffraction of stress waves by a plane finite crack in two dimensions: uniqueness and existence. **82k:73024**

Willis, J. R. *See* **Eatwell, G. P.; et al., 82m:73020**

Zvěřev, S. M. The method of metaharmonic potentials in hydroelasticity problems. (Russian. English summary) **82e:73033**

secondary classifications:

Donato, Andrea (*with* Fusco, Domenico) Nonlinear wave propagation in a layered half-space. (French and German summaries) **(82g:35072)**

Fusco, Domenico *See* **Donato, Andrea, (82g:35072)**

Genov, A. (*with* Petrov, I.) Quenching of oscillations in a nonlinear hyperbolic system. (Russian) (*See* **82k:70002b**)

Klem-Musatov, K. D. Theory of boundary waves and its application in seismology. (Russian) **(82i:73001)**

Košanbaev, M. K. (*with* Tleukenov, S. K.) On the reflection of SH-waves from a nonhomogeneous half space. (Russian) **(82k:86007)**

(Petrašen', G. I.) *See* **Questions in the dynamical theory of seismic wave propagation, (82k:86002)**

Petrov, I. *See* **Genov, A., (*See* 82k:70002b)**

Tleukenov, S. K. *See* **Košanbaev, M. K., (82k:86007)**

Wickham, G. R. Short-wave radiation from a rigid strip in smooth contact with a semi-infinite elastic solid. **(82c:73084)**

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73D30 Linear vibrations [See also 70Jxx.]

Basu, Uma Free axisymmetric vibration of an elastic circular plate with hole at the centre, resting on an elastic foundation. **82h:73031**

Budaev, V. S. Uniqueness of the external problems solution in the theory of elastic vibrations of anisotropic media. **82g:73019**

Naval, I. K. (*with* Rimskiĭ, V. K.) Elastic stress waves in an inhomogeneous layer. (Russian) **82g:73020**

Rimskiĭ, V. K. *See* **Naval, I. K., 82g:73020**

Stojan, V. A. Solution of the axisymmetric Cauchy problem for an elastic layer. (Ukrainian. English and Russian summaries) **82k:73025**

secondary classifications:

Gaiduk, S. I. Solvability of a boundary value problem from mechanical impact theory. (Russian. English summary) **(82d:35102)**

(Komkov, Vadim) *See* **Problems of elastic stability and vibrations, (82k:73003)**

Meeting:

American Mathematical Society ★Problems of elastic stability and vibrations. **(82k:73003)**

Pittsburgh, Pa. ★Problems of elastic stability and vibrations. **(82k:73003)**

Problems of elastic stability and vibrations ★Problems of elastic stability and vibrations. **(82k:73003)**

Session:

Problems in Elastic Vibrations, Stability and Related Topics ★Problems of elastic stability and vibrations. **(82k:73003)**

73D35 Nonlinear vibrations [See also 70Kxx.]

Alizade, A. N. *See* **Amenzade, R. Ju.; et al., 82m:73024**

Amenzade, R. Ju. (*with* Alizade, A. N.; Gadžiev, V. D.) Nonlinear waves in an elastic shell that contains a fluid. (Russian. Azerbaijani and English summaries) **82m:73024**

Černous'ko, F. L. The effect of internal elastic vibrations on the motion of rigid body. (Russian) (*See* **82k:70002b**)

Duvaut, Georges Wave propagation in fine periodic structures. **82i:73012**

Filippov, I. G. (*with* Nurmuhamedov, H. D.) On the theory of oscillations of an elastic plate lying on a rigid base. (Russian) **82h:73020**

Gadžiev, V. D. *See* **Amenzade, R. Ju.; et al., 82m:73024**

Gurvič, E. L. (*with* Lur'e, A. I.) On the theory of wave propagation in a nonlinear-elastic medium (effective checking of Hadamard condition). **82i:73013**

Lur'e, A. I. *See* **Gurvič, E. L., 82i:73013**

Molotkov, I. A. (*with* Vakulenko, S. A.) Nonlinear longitudinal waves in inhomogeneous rods. (Russian. English summary) **82h:73021**

Nurmuhamedov, H. D. *See* **Filippov, I. G., 82h:73020**

Seshadri, R. (*with* Singh, M. C.) Similarity analysis of wave propagation problems in nonlinear rods. (Polish and Russian summaries) **82j:73021**

Singh, M. C. *See* **Seshadri, R., 82j:73021**

Vakulenko, S. A. *See* **Molotkov, I. A., 82h:73021**

secondary classifications:

Bosquet, J. Fonctions périodiques et problèmes non linéaires. (English summary) **(82i:70025)**

Engelbrecht, Jüri Two-dimensional nonlinear evolution equations: the derivation and the transient wave solution. **(82f:35100)**

Lokšin, A. A. Fundamental solutions of wave operators with retarded time. New asymptotic formulas. (Russian) **(82h:35091)**

Planat, Michel *See* **Theobald, Geneviève, (82d:73016)**

Theobald, Geneviève (*with* Planat, Michel) Phénomènes non linéaires dans les dispositifs élastiques à forte puissance. (English summary) **(82d:73016)**

73D50 Inverse problems [See also 35Lxx, 35R30.]

73D70 Random waves

73D99 None of the above, but in this section

Al'šic, V. I. (*with* Lothe, J.) Comments on the relation between surface wave theory and the theory of reflection. **82m:73025**

Altuhov, E. V. *See* **Kosmodamians'kiĭ, O. S., 82e:73035**

Babeško, V. A. (*with* Rumjancev, A. N.) Vibration of a stamp partially adhering to an elastic medium. **82j:73022**

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Blištein, Ju. M. *See* **Čeban, V. G., 82m:73026**

Borejko, P. (*with* Chadwick, P.) Energy relations for acceleration waves in elastic materials. **82h:73022**

Bose, S. K. (*with* Debnath, Lokenath) On elastic waves in a medium with randomly distributed cylinders. **82f:73022**

Čeban, V. G. (*with* Blištein, Ju. M.) The dynamics of plane compression waves in an inhomogeneous viscoelastic medium. (Russian) **82m:73026**

(*with* Kerčman, V. I.; Prokopov, G. P.) Solution of problems of the dynamics of nonlinear-elastic media by the method of discontinuity decay. (Russian) **82k:73026**

Chadwick, P. *See* **Borejko, P., 82h:73022**

Čigarev, A. V. Geometry of wave fronts in inhomogeneous media. **82i:73014**

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Dzięcielak, Ryszard Propagation of discontinuity waves in a fluid-saturated porous medium. (Polish. English, Spanish and Russian summaries) **82k:73027**

Filippov, I. G. *See* **Popovič, A. Ju., (*See* 82k:73001)**

Giambò, Sebastiano (*with* Turrisi, E.) Waves of discontinuity and conditions of exceptionality in isotropic hypoelastic media of degree zero. (Italian. English summary) **82d:73018**

Godin, O. A. On the plane wave reflection from a layered half space. (Russian) **82h:73032**

Grinfel'd, M. A. Ray method of calculating the wave front intensity in nonlinearly elastic material. **82j:73024**

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Iskandarov, S. On the stability of oscillations of a viscoelastic beam. (Russian) **82k:73028**

Kaul, Raj K. (*with* Shaw, R. P.; Müller, W. Cristoph) Torsional waves in an axially homogeneous bimetallic cylinder. **82d:73019**

Kerčman, V. I. *See* **Čeban, V. G.; et al., 82k:73026**

Kiselev, A. P. Energy flow of elastic waves. (Russian. English summary) **82h:73023**

Kosmodamians'kiĭ, O. S. (*with* Altuhov, E. V.) Three-dimensional problems of induced vibrations of transtropic heterogeneous multiply connected plates. (Russian. English summary) **82e:73035**

(*with* Obodovskiĭ, L. B.; Storožev, V. I.) The effect of an elastic wave in an isotropic solid with a series of curvilinear anisotropic inclusions. (Russian. English summary) **82m:73028**

Lothe, J. *See* **Al'šic, V. I., 82m:73025**

Matsumoto, E. Behaviour of the stationary singular points in one-dimensional materials with internal state variables. (German summary) **82h:73033**

Molotkov, L. A. Characteristic matrices of slightly bent elastic layers. (Russian. English summary) **82e:73036**

Movsisjan, L. A. *See* **Bagdoev, A. G., 82e:73034**

Muhiddinov, S. R. A theorem on the uniqueness of the solution of a multidimensional inverse kinematic problem with account taken of anisotropy. (Russian) **82h:73024**

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Obodovskiĭ, L. B. *See* **Kosmodamians'kiĭ, O. S.; et al., 82m:73028**

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Popovič, A. Ju. (*with* Filippov, I. G.) Viscoelastic displacement waves in the quarter plane. (Russian) (*See* **82k:73001**)

Prokopov, G. P. *See* **Čeban, V. G.; et al., 82k:73026**

Rao, C. R. A. Epstein profiles and the Riemann *P*-functions. **82j:73026**

Rumjancev, A. N. *See* **Babeško, V. A., 82j:73022**

Sabodaš, P. R. *See* **Naval, I. K., (*See* 82k:73001)**

Sergeev, A. V. Uniqueness of the values of a wave field reconstructed by the inverse diffraction method. **82i:73015**

Shaw, R. P. *See* **Kaul, Raj K.; et al., 82d:73019**

Silli, Carlo Extraordinary waves of discontinuity in a wire resistant to bending and torsion. (Italian. English summary) **82k:73029**

Storožev, V. I. *See* **Kosmodamians'kiĭ, O. S.; et al., 82m:73028**

Symes, W. W. Stable solution of the inverse reflection problem for a smoothly stratified elastic medium. **82d:73020**

Turbé, Nicole Sur la propagation d'ondes dans des milieux élastiques périodiques. (English summary) **82i:73016**

Turrisi, E. *See* **Giambò, Sebastiano, 82d:73018**

Wesolowski, Zbigniew Wave propagation in finitely deformed elastic material. (*See* 82j:73002)

Wildheim, Jörgen Vibrations of rotating circumferentially periodic structures. **82g:73021**

Willis, J. R. Variational principles for dynamic problems for inhomogeneous elastic media. **82d:73021**

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Acoustic scattering from a submerged plate. II. Finite number of reinforcing ribs. **82c:73021b**

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Arnold, J. M. Unified asymptotic theory of asymmetrical planar waveguides. **(82a:76067)**
Bolotnik, N. N. *See* **Akulenko, L. D., (82j:70017)**
Carroll, Robert Wayne (*with* Santosa, Fadil) Résolution d'un problème inverse qui détermine complètement les données géophysiques. (English summary) **(82d:86008)**
Chen, Yu *See* **Davis, Julian, (82b:73057)**
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Grioli, Antonio Claudio Acceleration wave propagation in a Cosserat viscoelastic solid. (Italian) **(82m:73005)**
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Conference:
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Mathematical methods and applications of scattering theory ★Mathematical methods and applications of scattering theory. **(82h:81117)**
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Hlaváček, Ivan A finite element solution for plasticity with strain-hardening. (French summary) **(82a:73040)**

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Gaĭtova, L. M. (*with* Peresypkin, E. N.) A variational problem in creep theory in calculation for bend of a reinforced concrete girder plate with allowance for shrinkage of the concrete. (Russian. Armenian summary) **(82g:73033)**
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73E99 None of the above, but in this section

Argyris, J. H. (*with* Doltsinis, J. St.; Knudson, W. C.; Szimmat, J.; Willam, K. J.; Wüstenberg, H.) Eulerian and Lagrangian techniques for elastic and inelastic large deformation processes. **82c:73024**
Balankin, S. A. (*with* Gorbačev, L. P.; Grigor'ev, E. G.; Skorov, D. M.) The cumulation phenomenon in dynamic compression of powdered materials. (Russian) **82c:73025**
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Drucker, Daniel C. "Taylor instability"of the surface of an elastic-plastic plate. **82d:73023**
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Kaneko, Ikuyo Addendum: "Complete solutions for a class of elastic-plastic structures" [Comput. Methods Appl. Mech. Engrg. **21** (1980), no. 2, 193–209; MR 80m:73037]. **82k:73033**

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Lee, E. H. (*with* McMeeking, R. M.) Erratum: "Concerning elastic and plastic components of deformation" [Internat. J. Solids and Structures **16** (1980), no. 8, 715–721; MR 81e:73038]. **82e:73038**

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Mancino, Otello Giacomo Determination of the equilibrium configuration of an elastoplastic simply supported beam. (Italian) **82c:73028**

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Vil'ke, V. G Existence and uniqueness of solutions in the problem of the motion of a system consisting of an elastic body and a solid. (Russian. French summary) **82e:73041**

Wang, Zi Qiang Uniqueness, stability and variational principle for a large plastic deformation problem. (Chinese. English summary) **82m:73033**

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Atanacković, T. M. A stationarity principle for simple elastic materials. **(82e:73021)**

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Dvornikov, V. A. Some energy aspects of the theory of elasticity and plasticity. (Russian) **(82h:73022)**

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Nečas, Jindřich (*with* Trávníček, Luděk) Evolutionary variational inequalities and applications in plasticity. (Czech summary) **(82e:49021)**

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73F05 Creep and relaxation functions

73F10 Correspondence principle

73F15 Time-dependent boundary value problems

Bernstein, B. (*with* Shokooh, A.) The stress clock function in viscoelasticity. **82e:73042a**

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Do, Claude (*with* Raupp, Marco A.; Feijóo, Raúl A.) The dynamics of a bar in the presence of obstacles. **82h:73028**

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Fichera, Gaetano Analytic problems of materials with memory. **82j:73030**

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Panek, Carl (*with* Kalker, J. J.) Three-dimensional contact of a rigid roller traversing a viscoelastic half space. **(82b:73054)**

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Sandhu, R. S. (*with* Liu, Hon H.) Analysis of consolidation of viscoelastic soils. **(82e:73081)**

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Capriz, Gianfranco Quasistatic solutions in viscoelasticity. (Italian. English summary) **82m:73035**

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Heinloo, M. The algebra of fractional rational functions and its application in problems of viscoelasticity. (Russian. Estonian and English summaries) **82j:73034**
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Arutjunjan, N. H. (*with* Kolmanovskiĭ, V. B.) Stability of heterogeneously viscoelastic bars. (Russian. Armenian and English summaries) **(82d:73038)**
Atkinson, C. A note on some dynamic crack problems in linear viscoelasticity. (Polish and Russian summaries) **(82h:73047)**
Avenas, Pierre Méthode de calcul des écoulements viscoplastiques; application à la mise en forme des matériaux. (English summary) **(82a:76005)**
Beĭgel'zimer, Ja. E. (*with* Kulesko, N. A.; Palant, Ju. A.; Šiškova, N. E.) Investigation of the properties and structure of the solution of the hydrostatic extrusion problem. (Russian. English summary) **(82h:73042)**
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Mukherjee, Subrata (*with* Morjaria, Mahesh) Numerical analysis of planar, time-dependent inelastic deformation of plates with cracks by the boundary element method. **(82e:73075b)**
Owen, David Ross (*with* Yin, Wan Lee) Plane irrotational flows of rigid-viscoplastic bodies. (German summary) **(82i:73018)**
Paglietti, A. Can the theory of linear viscoelasticity be derived from the current thermodynamic theory of simple materials with fading memory? An objection. **(82g:73006)**
Palant, Ju. A. *See* **Beĭgel'zimer, Ja. E.; et al., (82h:73042)**
Papastavridis, John G. (*with* Lianis, G.) On the gravitational wave induced oscillations of viscoelastic bodies. **(82f:83037)**
Radhakrishna, L. (*with* Katkar, L. N.; Date, T. H.) Jaumann transport in relativistic continuum mechanics. **(82m:83028)**
Šestopal, N. M. *See* **Lenjuk, M. P., (82m:73008)**
Šiškova, N. E. *See* **Beĭgel'zimer, Ja. E.; et al., (82h:73042)**
Taroco, Edgardo *See* **Feijóo, Raúl A., (82a:73019)**
Yin, Wan Lee *See* **Owen, David Ross, (82i:73018)**

73Gxx Finite deformations

Gurtin, Morton E. ★Topics in finite elasticity. **82i:73022**

73G05 Finite elasticity

Abeyaratne, Rohan C. Discontinuous deformation gradients in the finite twisting of an incompressible elastic tube. **82d:73029**
Capriz, Gianfranco (*with* Podio-Guidugli, Paolo) The role of Fredholm conditions in Signorini's perturbation method. **82m:73038**
Černyh, K. F. The double stress tensor in the mechanics of a deformable body. (Russian) **82c:73036**
Choi, I. (*with* Shield, Richard T.) Second-order effects in problems for a class of elastic materials. (German summary) **82m:73039**
Gurtin, Morton E. (*with* Temam, Roger) On the antiplane shear problem in finite elasticity. **82d:73030**
Guz', O. M. Complex potentials of plane linearized elasticity-theory problems (incompressible body). **82g:73026**
Horgan, C. O. (*with* Knowles, James K.) The effect of nonlinearity on a principle of Saint-Venant type. **82h:73041**
Knowles, James K. *See* **Horgan, C. O., 82h:73041**
Lee, Sang J. (*with* Shield, Richard T.) Variational principles in finite elastostatics. (German summary) **82a:73021a**
(*with* Shield, Richard T.) Applications of variational principles in finite elasticity. (German summary) **82a:73021b**
Le Tallec, P. Compatibility condition and existence results in discrete finite incompressible elasticity. **82j:73036**
(*with* Oden, J. T.) Existence and characterization of hydrostatic pressure in finite deformations of incompressible elastic bodies. **82k:73034**
Mandel, Jean Sur la définition de la vitesse de déformation élastique et sa relation avec la vitesse de contrainte. (English summary) **82f:73024**
Nicholson, J. W. *See* **Simmonds, James G., 82k:73035**
Oden, J. T. *See* **Le Tallec, P., 82k:73034**
Pipkin, A. C. Plane traction problems for inextensible networks. **82m:73040**
Podio-Guidugli, Paolo *See* **Capriz, Gianfranco, 82m:73038**
Reagan, Ronald S. Finite deformations of circular arches. (*See* **82b:65074**)
Ruas, Vitoriano A class of asymmetric simplicial finite element methods for solving finite incompressible elasticity problems. **82m:73041**
Seth, Bhoj Raj Generalized measures for large deformations. (*See* **82j:73002**)
Shield, Richard T. *See* **Lee, Sang J., 82a:73021** *and* **Choi, I., 82m:73039**
Simmonds, James G. (*with* Nicholson, J. W.) On Sanders' energy-release rate integral and conservation laws in finite elastostatics. **82k:73035**
Sternberg, Eli On singular problems in linearized and finite elastostatics. (*See* **82d:00008**)
Temam, Roger *See* **Gurtin, Morton E., 82d:73030**

secondary classifications:

Bykovcev, G. I. (*with* Sygurova, O. L.) Construction of the theory of the flow of elastoplastic media under finite deformations. (Russian) **(82h:73002)**
Guo, Zhong Heng Einheitliche Theorie der Variationsprinzipien in der nichtlinearen Elastizität. **(82m:73014)**
Gurtin, Morton E. ★Topics in finite elasticity. **(82i:73022)**
Knowles, James K. Universal states of finite anti-plane shear: Ericksen's problem in miniature. **(82f:73018)**
Oden, J. T. Finite element methods for a class of nonlinear boundary value problems in finite elasticity. **(82b:73015)**
Panayotounakos, D. E. (*with* Theocaris, P. S.) Large elastic deformations in thin cantilever rods due to concentrated loadings. (French and German summaries) **(82d:73039)**
Sujunškaliev, N. H. A problem of the theory of elasticity of finite deformations (exact solution). (Russian) **(82h:73016)**
Sygurova, O. L. *See* **Bykovcev, G. I., (82h:73002)**
Theocaris, P. S. *See* **Panayotounakos, D. E., (82d:73039)**
Valid, Roger Le principe de l'énergie complémentaire en théorie non linéaire des coques. (English summary) **(82d:73070)**
Wesolowski, Zbigniew Wave propagation in finitely deformed elastic material. (*See* **82j:73002**)

73G10 Strain energy functions

Fosdick, R. L. (*with* James, Richard D.) The elastica and the problem of the pure bending for a nonconvex stored energy function. **82j:73037**
James, Richard D. *See* **Fosdick, R. L., 82j:73037**

secondary classifications:

Forte, S. On certain kinds of elastic potential. (Italian. English summary) **(82e:73022)**
Gurtin, Morton E. (*with* Temam, Roger) On the antiplane shear problem in finite elasticity. **(82d:73030)**
Temam, Roger *See* **Gurtin, Morton E., (82d:73030)**

73G15 Finite viscoelasticity

Rivlin, Ronald S. Some reflections on material stability. **82h:73030**

73G20 Metal forming problems

secondary classifications:

Amenzade, Ju. A. Stamping of a system of rigid rollers into an elastic ring. (Russian) **(82a:73058)**

Avenas, Pierre Méthode de calcul des écoulements viscoplastiques; application à la mise en forme des matériaux. (English summary) **(82a:76005)**
Kremp, Werner Zur Lösung eines Variationsproblems für das ebene Walzen. **(82h:73036)**

73G99 None of the above, but in this section

Beigel'zimer, Ja. E. (*with* Kulesko, N. A.; Palant, Ju. A.; Šiškova, N. E.) Investigation of the properties and structure of the solution of the hydrostatic extrusion problem. (Russian. English summary) **82h:73042**
Bourgat, J. F. (*with* Dumay, J. M.; Glowinski, R.) Large displacement calculations of flexible pipelines by finite element and nonlinear programming methods. **82c:73037**
Dumay, J. M. *See* **Bourgat, J. F.; et al., 82c:73037**
Glowinski, R. *See* **Bourgat, J. F.; et al., 82c:73037**
Hill, James M. The finite inflation of a thick-walled elastic torus. **82f:73025**
Knowles, James K. (*with* Sternberg, Eli) Antiplane shear fields with discontinuous deformation gradients near the tip of a crack in finite elastostatics. **82j:73038**
Kulesko, N. A. *See* **Beigel'zimer, Ja. E.; et al., 82h:73042**
Palant, Ju. A. *See* **Beigel'zimer, Ja. E.; et al., 82h:73042**
Pipkin, A. C. Finite plane stress of stiff fibre-reinforced sheets. **82h:73043**
Prediger, Hansbermann Zur Kompatibilität deformierbarer Kontinua. [On the compatibility of deformable continua] **82m:73042**
Reissner, E. On finite pure bending of curved tubes. **82g:73027**
Šiškova, N. E. *See* **Beigel'zimer, Ja. E.; et al., 82h:73042**
Sternberg, Eli *See* **Knowles, James K., 82j:73038**

secondary classifications:

Argyris, J. H. (*with* Doltsinis, J. St.) On the natural formulation and analysis of large deformation coupled thermomechanical problems. **(82j:73008)**
Carjuk, L. B. Self-affine symmetric problems of the imbedding of a rigid stamp. (Russian) **(82k:73072)**
Černjakov, Ju. A. (*with* Švaĭko, N. Ju.) Bifurcation of the deformation process and a criterion for the uniqueness of the solution of a boundary value problem of the theory of plasticity in speed. (Russian. English summary) **(82f:73023)**
Creasy, C. F. M. Derivation of Flory's thermodynamic relations from a phenomenological theory of rubber elasticity. **(82f:82039)**
Doltsinis, J. St. *See* **Argyris, J. H., (82j:73008)**
Reddy, B. D. Dual extremum principles in the dynamics of rigid perfectly plastic bodies undergoing finite deformations. **(82h:73037)**
Rivlin, Ronald S. *See* **Sawyers, Kenneth N., (82h:73048)**
Sawyers, Kenneth N. (*with* Rivlin, Ronald S.) Some stability conditions for a compressible elastic material. (German summary) **(82h:73048)**
Švaĭko, N. Ju. *See* **Černjakov, Ju. A., (82f:73023)**

73Hxx Stability (linear and nonlinear)

secondary classifications:

Babič, I. Ju. *See* **Guz', O. M., (82c:73002)**
Guz', O. M. (*with* Babič, I. Ju.) ★Трехмерная теория устойчивости стержней, пластин и оболочек. (Russian) [Three-dimensional theory of the stability of rods, plates and shells] **(82c:73002)**
Leipholz, Horst ★Stabilität elastischer Systeme. (German) [Stability of elastic systems] **(82g:73001a)**
★Stability of elastic systems. **(82g:73001b)**

73H05 Buckling

Antman, Stuart S. (*with* Dunn, J. Ernest) Qualitative behavior of buckled nonlinearly elastic arches. **82d:73031**
Atanacković, T. M. (*with* Milisavljević, B. M.) Some estimates for a buckling problem. (German summary) **82i:73023**
Variational principles for column buckling. **82h:73044**
Athel, S. A. *See* **El Naschie, M. S., 82k:73036**
Davi, Giuseppe On the elastic equilibrium of upright cylinders subject to stress on the lateral surface. I. (Italian) **82m:73043**
Di Carlo, A. *See* **Pignataro, M.; et al., 82e:73046**
Do, Claude Flambement élastoplastique d'une plaque mince. (English summary) **82c:73043**
Dunn, J. Ernest *See* **Antman, Stuart S., 82d:73031**
El Naschie, M. S. (*with* Athel, S. A.) On Cotterill-Castigliano's principle, Rayleigh-Timoshenko quotients and post buckling analysis. **82k:73036**
Fujii, Hiroshi (*with* Yamaguti, Masaya) Structure of singularities and its numerical realization in nonlinear elasticity. **82e:73044**
Guz', O. M. On the stability of elastic compressible bodies under all-around compression. **82f:73026**
Hansen, Jorn S. *See* **Hui, David, 82k:73037**
Hui, David (*with* Hansen, Jorn S.) The parabolic umbilic catastrophe and its application in the theory of elastic stability. **82k:73037**
Jiang, Wei The nonlinear stability of shallow shells curved in two directions. (Chinese. English summary) **82i:73024**
Kašin, Ju. A. (*with* Kravčenko, L. G.) Equilibrium of a rod with released constraints under supercritical loads (two-dimensional problem). (Russian) **82e:73045**
Kravčenko, L. G. *See* **Kašin, Ju. A., 82e:73045**
Milisavljević, B. M. *See* **Atanacković, T. M., 82i:73023**
Noor, Ahmed K. (*with* Weisstein, Larry S.) Stability of beamlike lattice trusses. **82c:73038**
Pignataro, M. (*with* Rizzi, N.; Di Carlo, A.) Symmetric bifurcation of plane frames through a modified potential energy approach. **82e:73046**
Renton, J. D. On the buckling of thick spherical shells under normal pressure. **82f:73027**
Rizzi, N. *See* **Pignataro, M.; et al., 82e:73046**
Shearer, Michael Bifurcation of axisymmetric buckled states of a thin spherical shell. **82a:73022**
Tarnai, T. Lateral buckling analysis of beams by the theory of quadratic operator pencils. **82h:73031**
Triantafyllidis, N. Bifurcation phenomena in pure bending. **82c:73039**
Weisstein, Larry S. *See* **Noor, Ahmed K., 82c:73038**
Yamaguti, Masaya *See* **Fujii, Hiroshi, 82e:73044**
Zeragija, D. P. Bifurcation of solutions of a system of nonlinear differential equations. (Russian) **82h:73045**
On branching of solutions to the problem of stability of rods experiencing joint action of compression and torsion. (Russian) **82k:73038**

secondary classifications:

Begin, M. V. Stability of orthotropic plates slightly resistant to transverse strains. **(82d:73042)**
Gurgov, È. Ju. (*with* Sibukaev, Š. M.) Dynamical stability of elastic plates with a pliable inclusion. (Russian) **(82h:73055)**
Hamada, Minoru (*with* Seguchi, Yasuyuki; Tada, Yukio) Shape determination problems of structures by the inverse variational principle. II. Buckling and vibration problems. **(82m:73058)**
Isami, Hidenori *See* **Niwa, Yoshiji; et al., (82k:58024)**
Jiang, Fu Ru Some applications of perturbation methods in thin plate bending problems. (Chinese. English summary) **(82m:73047)**
Keller, Joseph B. Some bubble and contact problems. **(82a:76010)**
(Komkov, Vadim) *See* **Problems of elastic stability and vibrations, (82k:73003)**
Kriegsmann, Gregory A. *See* **Lange, Charles G., (82h:73070)**
Lange, Charles G. (*with* Kriegsmann, Gregory A.) The axisymmetric branching behavior of complete spherical shells. **(82h:73070)**
Miersemann, Erich Über nichtlineare Eigenwertaufgaben in konvexen Mengen. (English summary) **(82k:49018)**
Mladenov, K. Eigenforms in Beck's problem. (Bulgarian. Russian and English summaries) **(82i:73032)**
Niwa, Yoshiji (*with* Watanabe, Eiichi; Isami, Hidenori) Catastrophe analysis of structures by discretization and modal transforms. **(82k:58024)**
Ruge, P. Eingrenzung kritischer Lasten über das zweiparametrige Eigenwertproblem. **(82j:35113)**
Seguchi, Yasuyuki *See* **Hamada, Minoru; et al., (82m:73058)**
Sibukaev, Š. M. *See* **Gurgov, È. Ju., (82h:73055)**
Srubščik, L. S. Precritical equilibrium of a thin shallow shell of revolution and its stability. **(82i:73046)**
Suquet, Pierre-M. Prévision par homogénéisation du flambement de plaques élastiques renforcées. (English summary) **(82i:73035)**
Tada, Yukio *See* **Hamada, Minoru; et al., (82m:73058)**
Watanabe, Eiichi *See* **Niwa, Yoshiji; et al., (82k:58024)**
Weber, Helmut Zur numerischen Behandlung gestörter Verzweigungsprobleme bei gewöhnlichen Differentialgleichungen. (English summary) **(82i:58050)**
Meeting:
American Mathematical Society ★Problems of elastic stability and vibrations. **(82k:73003)**
Pittsburgh, Pa. ★Problems of elastic stability and vibrations. **(82k:73003)**
Problems of elastic stability and vibrations ★Problems of elastic stability and vibrations. **(82k:73003)**
Session:
Problems in Elastic Vibrations, Stability and Related Topics ★Problems of elastic stability and vibrations. **(82k:73003)**

73H10 Dynamic stability

Amiro, I. Ja. Determination of critical values for dynamic loading (step impulse). **82d:73032**
Belen'kaja, L. H. A particular case of bifurcation of periodic modes of a viscoelastic rod under the effect of periodic loading. (Russian) **82m:73044**
Čelomei, S. V. Dynamic stability of elastic systems. (Russian) **82d:73033**
Guz', O. M. On the problems of stability of deformable systems under "tracking" loads. (*See* **81c:73003**)
Hu, Hai Chang On a variational principle in the theory of dynamic stability of elastic systems. **82h:73032**
Uzgider, Erdogăn Effect of external damping on the stability of columns subjected to an exponentially decaying axial force pulse. (Turkish summary) **82c:73040**
Zeinalova, T. Ju. Buckling of a nonlinear viscoelastic rod of a rectangular section. (Russian. Azerbaijani and English summaries) **82g:73028**

secondary classifications:

Adali, Sarp Optimal rotating column. **(82c:73061)**
Arutjunjan, N. H. (*with* Kolmanovskiĭ, V. B.) On the stability of nonuniformly aging viscoelastic rods. **(82j:73031)**
Babič, D. V. (*with* Horošun, L. P.) Dynamic loss of stability of an instantaneously compressed layered cylindrical shell. **(82k:73064)**
Barták, Jaroslav (*with* Neustupa, Jiří) A remark on the stability of the solutions of an equation on the oscillation of a rod. (Russian. Czech summary) **(82h:35086)**
Garg, V. K. *See* **Prasad, B., (82j:73047)**
Horošun, L. P. *See* **Babič, D. V., (82k:73064)**
Iskandarov, S. On the stability of oscillations of a viscoelastic beam. (Russian) **(82k:73028)**
Kolmanovskiĭ, V. B. *See* **Arutjunjan, N. H., (82j:73031)**
(Komkov, Vadim) *See* **Problems of elastic stability and vibrations, (82k:73003)**
Matkowsky, Bernard J. *See* **Putnick, Leonard J.; et al., (82k:73048)**
Narazaki, Takashi On the time global solutions of perturbed beam equations. **(82k:35013)**

Neustupa, Jiří *See* **Barták, Jaroslav, (82h:35086)**
Prasad, B. (*with* Garg, V. K.) Stability of a Timoshenko beam under initial stress to a moving load. **(82j:73047)**
Putnick, Leonard J. (*with* Matkowsky, Bernard J.; Reiss, Edward L.) Secondary states of vibrating plates. **(82k:73048)**
Reiss, Edward L. *See* **Putnick, Leonard J.; et al., (82k:73048)**
Thai, V. N. On stability of mechanical systems under the action of position forces. **(82i:70023)**
Wilkes, N. S. On the nonexistence of semigroups for some equations of continuum mechanics. **(82e:73013)**
Meeting:
American Mathematical Society ★Problems of elastic stability and vibrations. **(82k:73003)**
Pittsburgh, Pa. ★Problems of elastic stability and vibrations. **(82k:73003)**
Problems of elastic stability and vibrations ★Problems of elastic stability and vibrations. **(82k:73003)**
Session:
Problems in Elastic Vibrations, Stability and Related Topics ★Problems of elastic stability and vibrations. **(82k:73003)**

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Britvec, S. J. On the nonlinear behaviour and the stability of reticulated elastic systems. (*See* **82j:73002**)
Chiorescu, Gh. A stability theorem for the traction boundary value problem of the linear Cosserat elasticity. **82e:73047**
Lyapunov stability in the linear generalized theory of elastic rods. **82i:73025**
Davini, C. One-dimensional problems in the stability of thin shells. **82e:73048**
Garagaš, G. G. Stability of inhomogeneous three-dimensional elastic bodies. (Russian. Kazakh summary) **82e:73049**
Kazancev, V. A. *See* **Sačenkov, A. V.; et al., 82j:73039**
Komkov, Vadim An embedding technique for a class of problems in elastic stability. (German and Russian summaries) **82h:73046**
Konoplev, I. G. *See* **Sačenkov, A. V.; et al., 82j:73039**
Leipholz, Horst On a generalization of the lower bound theorem for elastic rods and plates subjected to compressive follower forces. **82h:73047**
Nguyen Quoc Son Stabilité et bifurcation en rupture et en plasticité. (English summary) **82i:73026**
Preobraženskiĭ, I. N. Research pertaining to stability of thin plates with holes (survey). **82h:73033**
Rivlin, Ronald S. *See* **Sawyers, Kenneth N., 82h:73048**
Sačenkov, A. V. (*with* Konoplev, I. G.; Kazancev, V. A.) Construction of formulas for estimation of stability and strength of shells in solution of problems by the theoretical-experimental method. (Russian) **82j:73039**
Sawyers, Kenneth N. (*with* Rivlin, Ronald S.) Some stability conditions for a compressible elastic material. (German summary) **82h:73048**
Skakauskas, V. I. The asymptotic solution of the problem of the oscillation of a pneumatic vibrator plate. (Russian. Lithuanian and English summaries) **82f:73028**
Wang, Chang Yi Large deformations of a heavy cantilever. **82h:73049**

secondary classifications:

Atluri, Satya N. *See* **Murakawa, Hide; et al., (82j:73055)**
Drucker, Daniel C. "Taylor instability"of the surface of an elastic-plastic plate. **(82d:73023)**
Guz', O. M. Problems of the stability of excavations. (Russian) **(82a:73055)**
Jakušev, R. S. Stability of a cylindrical shell under the action of a moving surface load. (Russian) **(82d:73062)**
Keady, Grant (*with* Norbury, John) A semilinear elliptic eigenvalue problem. I. **(82m:58018a)**
(*with* Norbury, John) A semilinear elliptic eigenvalue problem. II. The plasma problem. **(82m:58018b)**
Komkov, Vadim Application of invariant variational principles to the optimal design of a column. (German and Russian summaries) **(82h:73068)**
Leipholz, Horst Qualitative evaluation of continuous, nonconservative system's behaviour by energy-like methods. **(82b:58030)**
Mignot, Fulbert (*with* Puel, Jean-Pierre; Suquet, Pierre-M.) Flambage des plaques élastiques multiperforées. (English summary) **(82m:73050)**
Murakawa, Hide (*with* Reed, K. W.; Atluri, Satya N.; Rubenstein, R.) Stability analysis of structures via a new complementary energy method. **(82j:73055)**
Norbury, John *See* **Keady, Grant, (82m:58018a)** *and* **(82m:58018b)**
Puel, Jean-Pierre *See* **Mignot, Fulbert; et al., (82m:73050)**
Reed, K. W. *See* **Murakawa, Hide; et al., (82j:73055)**
Rubenstein, R. *See* **Murakawa, Hide; et al., (82j:73055)**
Shilkrut, Dov Solutions of some stability problems in the theory of geometrically nonlinear shells. **(82j:58038)**
Suquet, Pierre-M. *See* **Mignot, Fulbert; et al., (82m:73050)**
Zeinalova, T. Ju. Stability of a nonlinear elastic rod made of polymeric material. (Russian. Azerbaijani and English summaries) **(82g:73037)**

73Jxx Aero- and hydroelasticity

73J05 Interaction of aerodynamics and elasticity

Ariaratnam, S. T. *See* **Lin, Y. K., 82d:73034**
Hachem, Ghias Sur les fréquences de diffusion (scattering) d'un corps élastique couplé avec l'air. (English summary) **82f:73029**
Keller, Joseph B. *See* **Vanden-Broeck, Jean-Marc, 82a:73024**
Lin, Y. K. (*with* Ariaratnam, S. T.) Stability of bridge motion in turbulent winds. **82d:73034**
Ol'šanskiĭ, V. Ju. Two methods for calculating the load on the surface of a slender body executing axisymmetric vibrations in a sonic gas flow. **82a:73023**
Vanden-Broeck, Jean-Marc (*with* Keller, Joseph B.) Shape of a sail in a flow. **82a:73024**
Žinžer, N. I. On the problem of stability of a membrane in a supersonic gas flow. (Russian) **82c:73041**

secondary classifications:

Guz', O. M. Aerohydroelasticity problems for bodies with initial stresses. **(82c:73042)**
Skakauskas, V. I. The asymptotic solution of the problem of the oscillation of a pneumatic vibrator plate. (Russian. Lithuanian and English summaries) **(82f:73028)**
Asymptotic solution of the problem of oscillation of a pneumatic vibrator plate with allowance for gas viscosity. (Russian. Lithuanian and English summaries) **(82j:73048)**

73J06 Interaction of hydrodynamics and elasticity

Abrahams, I. D. Scattering of sound by a heavily loaded finite elastic plate. **82k:73039**
Čeban, V. G. (*with* Kerčman, V. I.; Prokopov, G. P.) Characteristic-difference method of solution of plane and axisymmetric problems of the dynamics of fluid-saturated porous media. (Russian) **82m:73045**
Cook, L. Pamela (*with* Holmes, Mark H.) Waves and dispersion relations for hydroelastic systems. **82h:73050**
Guz', O. M. Aerohydroelasticity problems for bodies with initial stresses. **82c:73042**
Haddow, J. B. *See* **Tait, R. J.; et al., 82d:73037**
Holmes, Mark H. *See* **Cook, L. Pamela, 82h:73050**
Israeli, Moshe *See* **Neishlos, H.; et al., 82j:73041**
Issid, N. T. *See* **Paidoussis, M. P.; et al., 82a:73025**
Kerčman, V. I. *See* **Čeban, V. G.; et al., 82m:73045**
Kil'čevs'kiĭ, M. O. (*with* Šal'da, L. M.) Self-similar motions of a system consisting of "an elastic shell and a liquid". (Russian. English summary) **82d:73035**
Kivity, Y. *See* **Neishlos, H.; et al., 82j:73041**
Kondo, Hisao Axisymmetric free vibration analysis of a circular cylindrical tank. **82d:73036**
Lesser, M. B. Analytic solutions of liquid-drop impact problems. **82j:73040**
Mišenkov, G. V. (*with* Samsonov, Ju. P.) Induced vibrations of coaxial viscoelastic cylindrical shells in a fluid. (Russian) **82e:73050**
Moodie, T. Bryant *See* **Tait, R. J.; et al., 82d:73037**
Müller, W. Cristoph Simplified analysis of linear fluid-structure interaction. **82c:73043**
Neishlos, H. (*with* Israeli, Moshe; Kivity, Y.) Stability of some explicit difference schemes for fluid-structure interaction problems. **82j:73041**
Orazov, M. B. Normal oscillations of a heavy viscous fluid that partially fills an elastic vessel (a model problem). (Russian) **82c:73044**
Paidoussis, M. P. (*with* Issid, N. T.; Tsui, M.) Parametric resonance oscillations of flexible slender cylinders in harmonically perturbed axial flow. I. Theory. **82a:73025**
Planchard, J. Fréquences propres d'un faisceau de tubes placés dans un liquide. (English summary) **82a:73026**
Prokopov, G. P. *See* **Čeban, V. G.; et al., 82m:73045**
Rapoport, E. F. A problem of static hydroelasticity. (Russian) **82e:73051**
Šal'da, L. M. *See* **Kil'čevs'kiĭ, M. O., 82d:73035**
Samsonov, Ju. P. *See* **Mišenkov, G. V., 82e:73050**
Tait, R. J. (*with* Moodie, T. Bryant; Haddow, J. B.) Wave propagation in a fluid-filled elastic tube. **82d:73037**
Tsui, M. *See* **Paidoussis, M. P.; et al., 82a:73025**

secondary classifications:

Alizade, A. N. *See* **Amenzade, R. Ju.; et al., (82m:73024)**
Amenzade, R. Ju. (*with* Nasibov, V. G.) Waves in an inhomogeneous viscoelastic tube with a flowing liquid. (Russian. Azerbaijani and English summaries) **(82c:76021)**
Waves in a nonuniform tube containing a liquid. (Russian) **(82c:76115)**
(*with* Alizade, A. N.; Gadžiev, V. D.) Nonlinear waves in an elastic shell that contains a fluid. (Russian. Azerbaijani and English summaries) **(82m:73024)**
Angelini, Jean (*with* Boujot, Jacqueline; Durand, Marc) Sur une propriété de compacité pour la résolution d'un problème de couplage extérieur. (English summary) [On a compactness property for solving an exterior coupling problem] **(82j:35042)**
Avagjan, S. G. (*with* Bagdoev, A. G.) Some problems in penetration of bodies into heavy fluid. (Russian. Armenian and English summaries) **(82d:76007)**
Bagdoev, A. G. *See* **Avagjan, S. G., (82d:76007)**
Boujot, Jacqueline *See* **Angelini, Jean; et al., (82j:35042)**
Demiray, Hilmi Some constitutive relations for soft biological tissues. (Turkish summary) **(82k:92023)**
Durand, Marc *See* **Angelini, Jean; et al., (82j:35042)**
Gadžiev, V. D. *See* **Amenzade, R. Ju.; et al., (82m:73024)**
Gubenko, V. S. (*with* Kuznecov, V. N.) Transient deformation of spherical and cylindrical shells in a viscous fluid. **(82c:73065)**
Horošun, L. P. (*with* Israfilov, R. M.) Stress state of porous cylinder in a fluid medium under a periodic load. **(82c:73052)**
Israfilov, R. M. *See* **Horošun, L. P., (82c:73052)**
Kostenko, V. G. Uniqueness of the solution of a problem of interaction of a piecewise-smooth elastic shell with acoustic media. (Ukrainian. Russian summary) **(82a:73008)**
Kuznecov, V. N. *See* **Gubenko, V. S., (82c:73065)**
Mishra, S. K. *See* **Rajhans, B. K., (82a:73016)**
Nasibov, V. G. *See* **Amenzade, R. Ju., (82c:76021)**
Petersen, Dieter Ein Beitrag zur nichtlinearen Stabtheorie. **(82a:73028)**
Rajhans, B. K. (*with* Mishra, S. K.) Diffraction of impulsive elastic waves by a fluid cylinder. **(82a:73016)**
Woolley, Barry Lee Acoustic scattering from a submerged plate. I. One reinforcing rib. **(82c:73021a)**

Acoustic scattering from a submerged plate. II. Finite number of reinforcing ribs. **(82c:73021b)**

Zvěřev, S. M. The method of metaharmonic potentials in hydroelasticity problems. (Russian. English summary) **(82e:73033)**

73J10 Vibrations, flutter

Reiss, Edward L. *See* **Sinay, Leon R., 82i:73027**

Sinay, Leon R. (*with* Reiss, Edward L.) Perturbed panel flutter: a simple model. **82i:73027**

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Kazarinoff, Nicholas D. *See* **Hassard, Brian D.; et al., (82j:58089)**

Wan, Yieh Hei *See* **Hassard, Brian D.; et al., (82j:58089)**

73J15 Divergence

73J99 None of the above, but in this section

Bălan, George C. *See* **Matulea, Iordan C.; et al., 82a:73027a**

Matulea, Iordan C. (*with* Bălan, George C.; Şorea, N. I.) Un modèle mathématique de la mécanique des fils immergés. (Romanian and English summaries) **82a:73027a**

Une méthode d'élément fini dans le modelage de la dynamique des fils immergés. (Romanian and English summaries) **82a:73027b**

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73Kxx Structural mechanics

(Germain, Paul) *See* **Valid, Roger, 82k:73040**

Valid, Roger ★Mechanics of continuous media and analysis of structures. **82k:73040**

secondary classifications:

Ammendola, Luigi ★Le funi d'acciaio: la resistenza. (Italian) [Steel cables: their resistance] **(82d:73002)**

73K03 Strings

Bamberger, Alain (*with* Cabannes, Henri) Mouvement d'une corde vibrante soumise à un frottement solide. (English summary) **82h:73051**

Cabannes, Henri Mouvements périodiques d'une corde vibrante en présence d'un obstacle ponctuel. (English summary) **82i:73028**

See also **Bamberger, Alain, 82h:73051**

Citrini, Claudio Counterexamples to the uniqueness of the motion of a string in the presence of a wall. (Italian. English summary) **82k:73041**

Marchionna, Clelia The equation of the vibrating string with variable discontinuous density. (Italian. English summary) **82k:73042**

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Migušov, I. I. ★Механика текстильной нити и ткани. (Russian) [The mechanics of textile threads and fabrics] **(82j:73001)**

Schatzman, Michelle The penalty method for the vibrating string with an obstacle. **(82i:35124)**

Sleeman, B. D. Boundary value problems for the vibrating string equation. **(82f:35110)**

Synge, J. L. On the vibrations of a heterogeneous string. **(82m:35091)**

73K05 Beams, columns, rods

Antman, Stuart S. (*with* Kenney, Charles S.) Large buckled states of nonlinearly elastic rods under torsion, thrust, and gravity. **82k:73043**

Arutjunjan, N. H. (*with* Kolmanovskiĭ, V. B.) Stability of heterogeneously viscoelastic bars. (Russian. Armenian and English summaries) **82d:73038**

Barta, J. Zwei Sätze über die Formänderungsenergie des elastischen Körpers. (English summary) **82h:73034**

Berdičevskiĭ, V. L. (*with* Starosel'skiĭ, L. A.) On the theory of naturally twisted curvilinear rods. **82e:73045**

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Chiorescu, Gh. Plane boundary-value problems in the nonlinear generalized theory of rods. I. Displacement equilibrium equations. (Romanian summary) **82k:73044**

Cicala, Placido On the nonlinear theory of rods and beams. (Italian. English summary) **82m:73046**

Deshwal, P. S. Torsion of a parabolic cylinder. **82i:73029**

Ecsedi, István An application of the maximum theorem concerning the complementary energy functional. **82e:73052**

Hatiašvili, G. M. A method of solving general Almansi-Michell problems for isotropic cylindrical bodies. (Russian) **82i:73030**

Kahaja, K. V. Saint-Venant problems for homogeneous naturally twisted isotropic beams. (Russian) **82e:73054**

Kenney, Charles S. *See* **Antman, Stuart S., 82k:73043**

Kolmanovskiĭ, V. B. *See* **Arutjunjan, N. H., 82d:73038**

Kuliev, S. A. Torsion of prismatic beams with two circular cavities. (Russian. Azerbaijani and English summaries) **82i:73031**

Ladevèze, Jean (*with* Ladevèze, P.; Pécastaings, F.; Pelle, J.-P.) Sur les fondements de la théorie linéaire des poutres élastiques. II. Théorie linéaire de la flexion des poutres droites homogènes et isotropes. (English summary) **82e:73055**

Ladevèze, P. *See* **Ladevèze, Jean; et al., 82e:73055**

Lenjuk, M. P. *See* **Val'kovskaja, V. I., 82d:73041**

Mladenov, K. Eigenforms in Beck's problem. (Bulgarian. Russian and English summaries) **82i:73032**

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(*with* Theocaris, P. S.) Nonlinear elastic analysis of planar curved beams loaded by co-planar concentrated forces. (German summary) **82k:73045**

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Petersen, Dieter Ein Beitrag zur nichtlinearen Stabtheorie. **82a:73028**

Poladjan, F. M. *See* **Zadojan, M. A., 82e:73057**

Popper, György *See* **Tarnai, T., 82c:73046**

Ruhadze, A. K. (*with* Berekašvili, R. A.) On a generalized Almansi problem. (Russian. Georgian and English summaries) **82g:73029**

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Bădoiu, Traian An algorithm for the automatic generation of high-precision conformal finite elements in boundary value problems of elasticity theory. I. (Romanian) **(82k:73053a)**

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Barta, J. Lower and upper bounds for the torsional rigidity of an elastic prismatical bar whose ends are rigid. **(82b:73005)**

Bolker, Ethan D. (*with* Roth, B.) When is a bipartite graph a rigid framework? **(82c:57003)**

Chiorescu, Gh. Lyapunov stability in the linear generalized theory of elastic rods. **(82i:73025)**

Courbon, Jean Équilibre d'une poutre chauffée reposant sur un plan horizontal indéformable. (English summary) **(82d:73086)**

El Naschie, M. S. *See* **Athel, S. A., (82d:58019)**

Friedman, Avner Free boundaries in elastic-plastic problems. **(82m:35145)**

Gallo, Angela *See* **Nania, Luciana, (82b:49013)**

Greenberg, J. M. (*with* Hu, S. C.) The initial value problem for a stretched string. **(82a:35021)**

Hu, S. C. *See* **Greenberg, J. M., (82a:35021)**

Kašin, Ju. A. (*with* Kravčenko, L. G.) Equilibrium of a rod with released constraints under supercritical loads (two-dimensional problem). (Russian) **(82e:73045)**

Kjazimova, R. A. The secondary effects of twisting of elliptic shafts. (Russian. Azerbaijani and English summaries) **(82h:73024)**

Kravčenko, L. G. *See* **Kašin, Ju. A., (82e:73045)**

Leipholz, Horst On a generalization of the lower bound theorem for elastic rods and plates subjected to compressive follower forces. **(82h:73047)**

Micheletti, Anna Maria Questions of genericity for ergodic motions. (Italian) **(82e:35055)**

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Nania, Luciana (*with* Gallo, Angela) A unilateral connection problem for the supported beam. (Italian. English summary) **(82b:49013)**

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Świsterski, W. *See* **Życzkowski, M., (*See* 82g:93003)**

Zeragija, D. P. Bifurcation of solutions of a system of nonlinear differential equations. (Russian) **(82h:73045)**

Życzkowski, M. (*with* Świsterski, W.) Optimal structural design of flexible beams with respect to creep rupture time. (*See* **82g:93003)**

73K10 Plates, discs

Annin, B. D. (*with* Hludnev, A. M.) Solvability of initial-boundary value problems for Kirchhoff-Berger equations of oscillations of plates and rods. (Russian) **82a:73029**

Begin, M. V. Stability of orthotropic plates slightly resistant to transverse strains. **82d:73042**

Beluhina, I. G. (*with* Efimov, A. B.) Numerical investigation of a problem on the stress-deformed condition of a rectangular plate supported by an extendable rod. (Russian) **82a:73030**

Bézine, Gérard Application of similarity to research of new boundary integral equations for plate flexure problems. **82d:73043**

Brešar, France The generalized boundary value problems in theory of plates. (German

and Serbo-Croatian summaries) **82i:73033**

Buriškin, M. L. (*with* Meglinskiĭ, V. V.) Solutions of metaharmonic equations of the theory of thick isotropic plates for generalized symmetric problems. (Russian. English summary) **82j:73042**

Chen, Chang Jun *See* **Miao, Tian De, 82e:73061**

Cheng, Keng Tung (*with* Olhoff, Niels) An investigation concerning optimal design of solid elastic plates. **82e:73058**

Ciarlet, Philippe G. (*with* Rabier, Patrick) ★Les équations de von Kármán. (French) [The von Kármán equations] **82g:73030**

(*with* Kesavan, S.) Two-dimensional approximations of three-dimensional eigenvalue problems in plate theory. **82h:73052**

Efimov, A. B. *See* **Beluhina, I. G., 82a:73030**

Galič, V. A. *See* **Kosmodamians'kiĭ, O. S.; et al., 82e:73059**

Girard, Raoul *See* **Osmont, Daniel, 82h:73035**

Guseĭn-zade, M. I. Asymptotic analysis of boundary and initial conditions in the dynamics of thin plates. **82j:73043**

Hackbusch, Wolfgang (*with* Hofmann, Götz) Results of the eigenvalue problem for the plate equation. (German summary) **82g:73031**

Haug, Edward J. (*with* Rousselet, Bernard) Design sensitivity analysis in structural mechanics. I. Static response variations. **82j:73046a**

Hludnev, A. M. *See* **Annin, B. D., 82a:73029**

Ho, Hwa Shan Bending of thin elastic plates with arbitrary geometry and boundary conditions. **82d:73044**

Hofmann, Götz *See* **Hackbusch, Wolfgang, 82g:73031**

Jiang, Fu Ru Some applications of perturbation methods in thin plate bending problems. (Chinese. English summary) **82m:73047**

Karčevskiĭ, M. M. (*with* Vološanovskaja, S. N.) An iteration method of solution of systems of strong bending of thin plates. (Russian) **82a:73031**

See also **Vološanovskaja, S. N.; et al., 82c:73049**

Kesavan, S. *See* **Ciarlet, Philippe G., 82h:73052**

Kikuchi, Noboru *See* **Ohtake, K.; et al., 82c:73047**

Kiričenko, V. F. (*with* Krys'ko, V. A.) Substantiation of the variational iteration method in the theory of plates. **82m:73048**

Kodnár, Rudolf (*with* Lovíšek, Ján) Variational inequality for the orthotropic plate reinforced with stiffening ribs. (Slovak and Russian summaries) **82h:73053**

Kosmodamians'kiĭ, O. S. (*with* Galič, V. A.; Šaldyrvan, V. A.) Bending of transtropic three-layer plates. (Russian. English summary) **82e:73059**

Krys'ko, V. A. *See* **Kiričenko, V. F., 82m:73048**

Lebedev, L. P. On equilibrium of a free nonlinear plate. **82m:73049**

Litvinov, V. G. A modification of the Ritz method for variational equations and its applications to boundary value problems with mixed boundary conditions. (Russian) **82k:73046**

Ljaško, A. D. *See* **Vološanovskaja, S. N.; et al., 82c:73049**

Lovíšek, Ján *See* **Kodnár, Rudolf, 82h:73053**

Luo, En On the solution of the Reissner model of a thick plate. (Chinese. English summary) **82f:73031**

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Meunargija, T. V. Symmetrical bending of a circular plate of constant thickness. (Russian) **82e:73060**

Miao, Tian De (*with* Chen, Chang Jun) On the Reissner theory of bending of an elastic plate. (Chinese. English summary) **82e:73061**

Mignot, Fulbert (*with* Puel, Jean-Pierre; Suquet, Pierre-M.) Flambage des plaques élastiques multiperforées. (English summary) **82m:73050**

Mindlin, R. D. On Reissner's equations for sandwich plates. **82g:73032**

Musalimov, V. M. (*with* Šalygin, I. I.) Invariant solutions of an equation of deflection of an orthotropic plate. (Russian) **82h:73054**

Oden, J. T. *See* **Ohtake, K.; et al., 82c:73047**

Ohtake, K. (*with* Oden, J. T.; Kikuchi, Noboru) Analysis of certain unilateral problems in von Kármán plate theory by a penalty method. I. A variational principle with penalty. **82c:73047a**

(*with* Oden, J. T.; Kikuchi, Noboru) Analysis of certain unilateral problems in von Kármán plate theory by a penalty method. II. Approximation and numerical analysis. **82c:73047b**

Olhoff, Niels *See* **Cheng, Keng Tung, 82e:73058**

Osmont, Daniel (*with* Girard, Raoul) Formulations variationnelles mixtes et déplacement du problème de l'équilibre des plaques. Application aux éléments finis de plaques isoparamétriques. I. (English summary) **82h:73035**

Proskura, A. V. Asymptotically exact equations for the bending of thin plates. (Russian) **82c:73048**

Asymptotically exact equations of the bending of thin plates under conditions of incompressibility. (Russian. English summary) **82j:73044**

Puel, Jean-Pierre *See* **Mignot, Fulbert; et al., 82m:73050**

Rabier, Patrick *See* **Ciarlet, Philippe G., 82g:73030**

Rousselet, Bernard *See* **Haug, Edward J., 82j:73046a**

Šaldyrvan, V. A. *See* **Kosmodamians'kiĭ, O. S.; et al., 82e:73059**

Šalygin, I. I. *See* **Musalimov, V. M., 82h:73054**

Suquet, Pierre-M. *See* **Mignot, Fulbert; et al., 82m:73050**

Takagi, Shunsuke Influence-function approach to the solution of the deflection of a floating elastic plate and nonuniqueness of the solutions. **82h:73036**

Vološanovskaja, S. N. (*with* Karčevskiĭ, M. M.; Ljaško, A. D.) Difference schemes for some problems of physically and geometrically nonlinear bending of plates. (Russian) **82c:73049**

Difference scheme for a problem of strong bending of circular thin plates. (Russian) **82j:73045**

See also **Karčevskiĭ, M. M., 82a:73031**

Zhou, Huan Wen On the problems of bending of elastic plates. (Chinese. English summary) **82k:73047**

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Altuhov, E. V. *See* **Kosmodamians'kiĭ, O. S., (82e:73035)**

Brezzi, F. E. (*with* Fujii, Hiroshi) Mixed finite element approximations of the von Kármán equations. **(82a:73037)**

Christiansen, Edmund Limit analysis for plastic plates. **(82h:73026)**

Coffman, C. V. (*with* Duffin, Richard J.) On the structure of biharmonic functions satisfying the clamped plate conditions on a right angle. **(82e:31004)**

Destuynder, Phillippe A justification of the Hencky model for plates in elastoplasticity. (*See* **82d:00005**)

Duffin, Richard J. *See* **Coffman, C. V., (82e:31004)**

Frank, L. S. (*with* Wendt, W. D.) Coercive singular perturbations: asymptotics and reduction to regularly perturbed boundary value problems. **(82j:35012)**

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Galimov, Š. K. On the refined theory of plates and shells of H. M. Multari. (Russian) **(82f:73039)**

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Hunt, G. W. An algorithm for the nonlinear analysis of compound bifurcation. **(82h:58012)**

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Kodnár, Rudolf Qualitative Eigenschaften eines Typs von Randproblemen. I. (Slovak and Russian summaries) **(82k:35045a)**

Qualitative Eigenschaften eines Typs von Randproblemen. II. (Slovak and Russian summaries) **(82k:35045b)**

Qualitative properties of a type of boundary value problems. III. (Russian. Slovak and German summaries) **(82k:35045c)**

Kosmodamians'kiĭ, O. S. (*with* Altuhov, E. V.) Three-dimensional problems of induced vibrations of transtropic heterogeneous multiply connected plates. (Russian. English summary) **(82e:73035)**

Lovíšek, Ján Duality in the obstacle and unilateral problem for the biharmonic operator. (Czech summary) **(82k:49017)**

Mróz, Zenon *See* **Gierliński, J., (82g:73039)**

Preobraženskiĭ, I. N. Research pertaining to stability of thin plates with holes (survey). **(82h:73033)**

Solov'ev, A. P. Nonlinear elastic strains of an unevenly heated circular plate. **(82d:73087)**

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Waberski, A. Application of theory of optimal filtering to boundary problems of dynamics of plates. (Polish and Russian summaries) **(82i:73039)**

Wendt, W. D. *See* **Frank, L. S., (82j:35012)**

73K12 Vibrations of beams, plates, etc.

Chehil, Dalip S. (*with* Rahman, Matiur) Effect of inertia and shear forces on the longitudinal vibration of tapered bars. **82m:73051**

Dmitrieva, Ž. N. On the theory of nonlinear oscillations of thin rectangular plates. (Russian) **82c:73050**

Egoryčev, O. A. The effect of a moving load on a viscoelastic laminated plate. (Russian) **82d:73045**

Garg, V. K. *See* **Prasad, B., 82j:73047**

Gupta, K. K. Development of a unified numerical procedure for free vibration analysis of structures. **82d:73046**

Gurgov, È. Ju. (*with* Sibukaev, Š. M.) Dynamical stability of elastic plates with a pliable inclusion. (Russian) **82h:73055**

Haug, Edward J. (*with* Rousselet, Bernard) Design sensitivity analysis in structural mechanics. II. Eigenvalue variations. **82j:73046b**

Hludnev, A. M. Approximate description of vibrations of a rod of periodic structure with oscillator masses. (Russian) **82h:73056**

Kerstens, J. G. M. Vibration of complex structures: the modal constraint method. **82i:73034**

Konoplev, Ju. G. (*with* Šiškin, A. G.) Free oscillations of plates and shells weakened by holes or supported at the ends. (Russian) **82e:73062**

Lesničaja, V. A. (*with* Manevič, L. I.) An asymptotic study of the vibrations of a plate with stiffening ribs. **82a:73032**

Manevič, L. I. *See* **Lesničaja, V. A., 82a:73032**

Matkowsky, Bernard J. *See* **Putnick, Leonard J.; et al., 82k:73048**

Mokrjak, S. Ja. *See* **Musalimov, V. M., 82h:73057**

Musalimov, V. M. (*with* Mokrjak, S. Ja.) Group properties of the equation of oscillation of plates. (Russian) **82h:73057**

Osmont, Daniel (*with* Simon, L.) Un algorithme d'itération sur le sous-espace pour le calcul des modes propres des "systèmes gyroscopiques". (English summary) **82h:73058**

Pal'mov, V. A. Integral methods for investigating the vibration of complex dynamical systems. (Russian. English summary) **82a:73033**

Prasad, B. (*with* Garg, V. K.) Stability of a Timoshenko beam under initial stress to a moving load. **82j:73047**

Putnick, Leonard J. (*with* Matkowsky, Bernard J.; Reiss, Edward L.) Secondary states of vibrating plates. **82k:73048**

Rahman, Matiur *See* **Chehil, Dalip S., 82m:73051**

Reiss, Edward L. *See* **Putnick, Leonard J.; et al., 82k:73048**

Rousselet, Bernard *See* **Haug, Edward J., 82j:73046b**

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Skakauskas, V. I. Asymptotic solution of the problem of oscillation of a pneumatic vibrator plate with allowance for gas viscosity. (Russian. Lithuanian and English summaries) **82j:73048**

Suquet, Pierre-M. Prévision par homogénéisation du flambement de plaques élastiques renforcées. (English summary) **82i:73035**

Suzuki, Katsuyoshi *See* **Takahashi, Shin; et al., 82d:73047**

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circular plates with thickness varied along radius. **82d:73047**

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Hamada, Minoru (*with* Seguchi, Yasuyuki; Tada, Yukio) Shape determination problems of structures by the inverse variational principle. II. Buckling and vibration problems. **(82m:73058)**

Hlushev, A. M. Solvability of initial-boundary value problems for a weakly nonlinear system. (Russian) **(82g:35106)**

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Lur'e, K. A. *See* **Olhoff, Niels; et al., (82f:73035)**

Marsden, Jerrold E. *See* **Holmes, Philip J., (82m:58039)**

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Narazaki, Takashi On the time global solutions of perturbed beam equations. **(82k:35013)**

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Paria, G. (*with* Ahmed, G.) Stochastic vibration of beam with the effect of shear deformation. **(82k:73042)**

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Seshadri, R. (*with* Singh, M. C.) Similarity analysis of wave propagation problems in nonlinear rods. (Polish and Russian summaries) **(82j:73021)**

Singh, M. C. *See* **Seshadri, R., (82j:73021)**

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Tada, Yukio *See* **Hamada, Minoru; et al., (82m:73058)**

von Wahl, Wolf On nonlinear evolution equations in a Banach space and on nonlinear vibrations of the clamped plate. **(82i:35086)**

73K15 Membranes, shells

Bahromova, Z. N. Numerical solution of a boundary value problem on the deformation of a long flexible cylindrical panel. (Russian. Tajiki summary) **82i:73036**

Bektursunov, U. Impact by a cone along a membrane with finite displacements. (Russian. Kazakh summary) **82j:73049**

Černyh, K. F. Nonlinear theory of isotropically elastic thin shells. **82h:73059**

De, Sasadhar Vibrations of a composite rectangular membrane. **82d:73048**

Gaitova, L. M. (*with* Peresypkin, E. N.) A variational problem in creep theory in calculation for bend of a reinforced concrete girder plate with allowance for shrinkage of the concrete. (Russian. Armenian summary) **82g:73033**

Gibson, John Edward ★Thin shells. **82f:73032**

Peresypkin, E. N. *See* **Gaitova, L. M., 82g:73033**

Šamina, V. A. Two-dimensional variant of nonlinear relations in the theory of continuum deformation. (Russian) **82c:73051**

Simmonds, James G. Six different stress functions for membranes of revolution. **82a:73034**

Vianello, Maurizio On the equilibrium of a non-simply connected membrane with constant curvature. (Italian. English summary) **82k:73060**

Vil'ke, V. G. On stability of nonlinear oscillations of a membrane. **82g:73034**

secondary classifications:

Amiro, I. Ja. (*with* Zaruc'kiĭ, V. O.) ★Теория ребристых оболочек. (Russian) [Theory of ribbed shells] **(82f:73037b)**

Čehov, Val. N. *See* **Guz', O. M.; et al., (82f:73037a)**

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Chadaja, F. G. (*with* Girogadze, D. P.; Gogija, A. A.) Calculation of a cylindrical shell-dam of variable thickness. (Russian) **(82d:73064)**

Gaiduk, S. I. On some boundary value problems associated with the theory of transversal impact on a rectangular membrane. (Russian. English summary) **(82g:73015)**

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Gjuntner, A. F. (*with* Žgenti, V. S.) On the classical system of differential equations of equilibrium of shells. (Russian) **(82i:73045)**

Gogija, A. A. *See* **Chadaja, F. G.; et al., (82d:73064)**

Guz', O. M. (*with* Černyšenko, I. S.; Čehov, Val. N.; Čehov, Vik. N.; Šnerenko, K. I.) ★Теория тонких оболочек, ослабленных отверстиями. (Russian) [Theory of thin shells weakened by holes] **(82f:73037a)**

Haugeneder, Ernst ★Über Variationsprinzipien zur Berechnung dünner Schalen mittels der Methode der finiten Elemente bei Verwendung nicht-konformer Verschiebungsansätze. (German) [On variational principles for the calculation of thin shells using the method of finite elements with nonconforming displacement elements] **(82a:73039)**

Medvedkov, O. I. Determination of deflection of prismatic shells. **(82c:73067)**

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Šnerenko, K. I. *See* **Guz', O. M.; et al., (82f:73037a)**

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Žgenti, V. S. *See* **Gjuntner, A. F., (82i:73045)**

Methods for calculating shells *See* **Guz', O. M.; et al., (82f:73037a)** *and* **Amiro, I. Ja.; et al., (82f:73037b)**

73K20 Composite structures and materials

Aboudi, Jacob Effective stiffness theory for a laminated elastic-viscoplastic work-hardening composite. **82d:73049**

Bert, Charles W. Closed-form solution of an arbitrarily laminated, anisotropic, elliptic plate under uniform pressure. **82h:73061**

Bogan, Ju. A. Asymptotic behavior of boundary value problems for an elastic ring reinforced by very rigid fibers. (Russian) **82h:73062**

Caillerie, Denis Homogénéisation d'un corps élastique renforcé par des fibres minces de grande rigidité et répartis périodiquement. (English summary) **82h:73063**

(Cleary, Michael P.) *See* **Rudnicki, J. W., 82g:73035**

Galpčjan, P. V. The plastic torsion of a curved bar composed of different materials. (Russian. Armenian and English summaries) **82e:73063**

Gavelja, S. P. A method for constructing matrices of Green's type for composite shells. (Russian. English summary) **82m:73052**

Hamrakulova, R. *See* **Saatov, Ja. U., 82g:73036**

Horošun, L. P. (*with* Israfilov, R. M.) Stress state of porous cylinder in a fluid medium under a periodic load. **82c:73052**

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Kowalski, Stefan J. Comparison of the Biot equations of motion for a fluid-saturated porous solid with those of Derski. (Russian summary) **82i:73037**

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Leko, T. D. On the solution of plane problems for elastic plates with holes. **82c:73053**

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Kowalski, Stefan J. *See* **Derski, Włodzimierz, (82i:73005)**

Kubik, Józef Permeability tensor and porosity of material with rectilinear channels. (Russian summary) **(82h:73072)**

Lee, E. H. *See* **Lubarda, V. A., (82m:73032a)** *and* **(82m:73032b)**

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Shaw, R. P. *See* **Kaul, Raj K.; et al., (82d:73019)**

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Whiteley, Walter *See* **Roth, B., (82m:51018)**

Wu, Julian J. Variational methods of convolution integral and of large spring constants —a numerical comparison. **(82a:65052)**

73K25 Finite element methods

Amara, Mohamed (*with* Destuynder, Phillippe) A numerical method for the biharmonic problem. **82k:73051**

Andersen, C. M. *See* **Noor, Ahmed K., 82h:73064**

Argyris, J. H. (*with* Dunne, P. C.; Johnsen, Th. L.; Mlejnek, H.-P.) A new iterative solution for structures and continua with very stiff or rigid parts. **82k:73052**

(*with* Symeonidis, Sp.) Nonlinear finite element analysis of elastic systems under nonconservative loading—natural formulation. I. Quasistatic problems. **82j:73050**

Asano, Naoki Finite element method for shearing deformation. **82a:73035**

Atluri, Satya N. *See* **Murakawa, Hide, 82c:73058** *and* **82j:73055**

Bădoiu, Traian An algorithm for the automatic generation of high-precision conformal finite elements in boundary value problems of elasticity theory. I. (Romanian) **82k:73053a**

An algorithm for the automatic generation of high-precision conformal finite elements in boundary value problems of elasticity theory. II. (Romanian) **82k:73053b**

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Bettess, Peter More on infinite elements. **82a:73036**

Bevilacqua, Luiz *See* **Feijóo, Raúl A.; et al., 82a:73038**

Booker, J. R. (*with* Small, J. C.) Finite element analysis of problems with infinitely distant boundaries. **82i:73038**

Brezzi, F. E. (*with* Fujii, Hiroshi) Mixed finite element approximations of the von Kármán equations. **82a:73037**

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Dill, Ellis Harold The finite element method of nonlinear field theories of mechanics. **82c:73054**

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Fomin, V. P. Calculation of cylindrical reinforced shells taking account of the nonlinear behavior of construction elements. (Russian) **82c:73055**

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Fusciardi, A. (*with* Scarpini, F.) A mixed finite element solution of some biharmonic unilateral problem. **82c:73056**

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Guo, Zhong Heng "Generalized substructure method" in finite element analysis of elastic contact problems. **82d:73051**

Haugeneder, Ernst ★Über Variationsprinzipien zur Berechnung dünner Schalen mittels der Methode der finiten Elemente bei Verwendung nicht-konformer Verschiebungsansätze. (German) [On variational principles for the calculation of thin shells using the method of finite elements with nonconforming displacement elements] **82a:73039**

Hlaváček, Ivan A finite element solution for plasticity with strain-hardening. (French summary) **82a:73040**

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Hughes, Thomas J. R. *See* **Kanoknukulchai, Worsak; et al., 82j:73053**

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Jiang, Er Xiong New expressions of some integrals in computing axisymmetric elastic stress with triangular ring elements. (Chinese) **82g:73038**

Jiang, Li Shang (*with* Shen, Shu Min; Wu, Mao Qing; Qin, Gan; Yan, Da Kang) Finite element methods for solving structures composed of plate-beams, with their error estimate. (Chinese. English summary) **82f:73033**

Jirousek, J. A family of variable section curved beam and thick-shell or membrane-stiffening isoparametric elements. **82b:73039**

Johnsen, Th. L. *See* **Argyris, J. H.; et al., 82k:73052**

Jospin, Reinaldo J. *See* **Feijóo, Raúl A.; et al., 82a:73038**

Kanoknukulchai, Worsak (*with* Taylor, Robert Leroy; Hughes, Thomas J. R.) A large deformation formulation for shell analysis by the finite element method. **82j:73053**

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Lee, Doo Sung Stress analysis of shallow shell by finite element method. (Korean summary) **82m:73054**

Lesaint, Pierre On the convergence of Wilson's nonconforming element for solving the elastic problem. **82c:73057**

Malkus, David S. (*with* Fuller, E. R., Jr.) An isoparametric finite element model for large-strain elastostatics. **82d:73052**

Martins, R. A. F. (*with* Owen, D. R. J.) Elastoplastic and geometrically nonlinear thin shell analysis by the semiloof element. **82e:73065**

Mignot, A. L. (*with* Surry, C.) A mixed finite element family in plane elasticity. **82m:73055**

Mlejnek, H.-P. *See* **Argyris, J. H.; et al., 82k:73052**

Murakawa, Hide (*with* Atluri, Satya N.) Finite element solutions of finite-strain elastic-plastic problems, based on a complementary rate principle. **82c:73058**

(*with* Reed, K. W.; Atluri, Satya N.; Rubenstein, R.) Stability analysis of structures via a new complementary energy method. **82j:73055**

Nassar, Elsayed Abdel-Ati M. *See* **Nayfeh, Adnan H., 82d:73053**

Nayfeh, Adnan H. (*with* Nassar, Elsayed Abdel-Ati M.) Mathematical simulation of singularities for isoparametric elements of arbitrary orders. **82d:73053**

Noor, Ahmed K. (*with* Andersen, C. M.) Computerized symbolic manipulation in nonlinear finite element analysis. **82h:73064**

Okabe, Masayuki Complete Lagrange family for the cube in finite element interpolations. **82m:73056**

Owen, D. R. J. *See* **Martins, R. A. F., 82e:73065**

Pian, Theodore H. H. (*with* Tong, Pin) Reissner's principle in finite element formulations. **82c:73059**

Qian, Wei Chang Finite element analysis of axisymmetric elastic body problems. (Chinese. English summary) **82k:73055**

Qin, Gan *See* **Jiang, Li Shang; et al., 82f:73033**

Reed, K. W. *See* **Murakawa, Hide; et al., 82j:73055**

Rheinboldt, Werner C. Adaptive mesh refinement processes for finite element solutions. **82f:73034**

Rubenstein, R. *See* **Murakawa, Hide; et al., 82j:73055**

Scarpini, F. *See* **Fusciardi, A., 82c:73056**

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Simkins, T. E. Finite elements for initial value problems in dynamics. (*See* **82k:00010**)

Small, J. C. *See* **Booker, J. R., 82i:73038**

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Symeonidis, Sp. *See* **Argyris, J. H., 82j:73050**

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Taylor, Robert Leroy *See* **Kanoknukulchai, Worsak; et al., 82j:73053**

Tong, Pin *See* **Pian, Theodore H. H., 82c:73059**

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Wu, Mao Qing *See* **Jiang, Li Shang; et al., 82f:73033**

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Balmer, H. *See* **Argyris, J. H.; et al., (82b:73046)**

Bergan, P. G. Finite elements based on energy orthogonal functions. **(82b:65115a)**

Correction and further discussion of: "Finite elements based on energy orthogonal functions". **(82b:65115b)**

Brezzi, F. E. Finite element methods for nonlinear problems. (Italian) **(82i:65070)**

Cannarozzi, Agostino A. On the resolution of some unilaterally constrained problems in structural engineering. **(82h:73066)**

Canuto, Claudio A hybrid finite element method to compute the free vibration frequencies of a clamped plate. (French summary) **(82h:65082)**

Fanelli, M. *See* **Peano, A.; et al., (*See* 82i:73003)**

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Gallagher, Richard H. A review of finite element techniques in fracture mechanics. (*See* 82i:73003)

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Hinton, E. *See* **Owen, D. R. J., (82d:73022)**

Hoppe, Viggo High order polynomial elements with isoparametric mapping. **(82d:65012)**

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Ishihara, Kazuo A finite element lumped mass scheme for solving eigenvalue problems of circular arches. **(82c:65071)**

Ivanov, Ju. B. Solution of a mixed boundary value problem of two-dimensional elasticity theory by the finite element method. (Russian) **(82h:65126)**

Kamat, M. P. (*with* Watson, Layne T.; Vanden Brink, D. J.) An assessment of quasi-Newton sparse update techniques for nonlinear structural analysis. **(82f:65061)**

Kikuchi, Noboru (*with* Song, Young Joon) Penalty/finite-element approximations of a class of unilateral problems in linear elasticity. **(82k:73075)**

Kimura, Fumihiko *See* **Hosaka, Mamoru, (82h:53003)**

Kleiber, Michal Nonlinear, static and dynamic analysis of shells by the finite element method. (Polish. Russian and English summaries) **(82e:73069)**

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Lovíšek, Ján *See* **Kodnár, Rudolf, (82h:73053)**

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Mukherjee, Subrata (*with* Morjaria, Mahesh) A boundary element formulation for planar time-dependent inelastic deformation of plates with cutouts. **(82e:73075a)**

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Okabe, Masayuki Analytical integral formulae related to convex quadrilateral finite elements. **(82k:65068)**

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Patterson, C. The extended energy method for mixed mode fracture problems. **(82k:73068)**

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Reddy, J. N. A penalty finite element for nonlinear analysis of thin and moderately thick plates. **(82a:49039)**

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Ruas, Vitoriano A class of asymmetric simplicial finite element methods for solving finite incompressible elasticity problems. **(82m:73041)**

Sardella, L. *See* **Peano, A.; et al., (*See* 82i:73003)**
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Seng, Young Joon *See* **Kikuchi, Noboru, (82k:73075)**
Strang, Gilbert The quasi-Newton method in finite element calculations. **(82d:65076)**
Vanden Brink, D. J. *See* **Kamat, M. P.; et al., (82f:65061)**
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Watson, Layne T. *See* **Kamat, M. P.; et al., (82f:65061)**
Weisel, Jutta Approximation quasikonformer Abbildungen mehrfach zusammenhängender Gebiete durch finite Elemente. (English summary) **(82g:30016)**
Whiteman, J. R. *See* **Schiff, B.; et al., (82e:73078)**

73K30 Other numerical methods

Agar, T. J. A. *See* **Jennings, A., 82j:73056**
Antomoni, V. I. A method of numerical analysis of nonlinear oscillations of plates and shallow shells using implicit difference schemes. (Russian) **82k:73056**
Carey, Graham F. (*with* Krishnan, R.) On a nonlinear iterative method in applied mechanics. I. **82h:73065**
Enright, W. H. On the efficient time integration of systems of second-order equations arising in structural dynamics. **82a:73041**
Gordon, V. A. (*with* Mažeru, V. V.) Approximate method of solution of problems of the theory of elasticity of one-dimensionally inhomogeneous bodies. (Russian) **82k:73057**
Hairullin, S. H. Application of the collocation to the solution of linear equations of plate bending. (Russian) **82h:73040**
Hurcilava, V. K. Application of the method of variable directions for a rectangular plate with a freely supported corner. (Russian) (*See* **82i:65002**)
Jennings, A. (*with* Agar, T. J. A.) Progressive simultaneous inverse iteration for symmetric linearized eigenvalue problems. **82j:73056**
Krishnan, R. *See* **Carey, Graham F., 82h:73065**
Kubanskaja, A. P. Convergence of a scheme of high accuracy of the method of lines for the problem of the bending of a rectangular isotropic plate. (Russian) **82j:73057**
Mažeru, V. V. *See* **Gordon, V. A., 82k:73057**
Noor, Ahmed K. Recent advances in reduction methods for nonlinear problems. **82k:73058**
Obrębski, Jan B. A generalized numerical algorithm for analysis of rod constructions. (Polish. English and Russian summaries) **82c:73060**
Usmani, Riaz A. (*with* Warsi, S. A.) Smooth spline solutions for boundary value problems in plate deflection theory. **82h:73041**
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Bahromova, Z. N. Numerical solution of a boundary value problem on the deformation of a long flexible cylindrical panel. (Russian. Tajiki summary) **(82i:73036)**
Bezdetnyĭ, B. P. *See* **Gluščenko, A. A., (82g:76006)**
Clements, David L. (*with* Jones, Oscar A. C.) The boundary integral equation method for the solution of a class of problems in anisotropic elasticity. **(82h:73018)**
Gluščenko, A. A. (*with* Bezdetnyĭ, B. P.) Solution of boundary value problems of continuum mechanics by the method of *P*-transformations. (Russian. Bulgarian and English summaries) **(82g:76006)**
Hackbusch, Wolfgang (*with* Hofmann, Götz) Results of the eigenvalue problem for the plate equation. (German summary) **(82g:73031)**
Hadid, Hassoun A. *See* **Lynn, Paul P., (82h:65132)**
Han, Hou De *See* **Ying, Long An, (82j:65085)**
Heuer, Hans Die numerische Lösung einer Randwertaufgabe der Elastizitätstheorie mit gemischten Randbedingungen. **(82h:73023)**
Hofmann, Götz *See* **Hackbusch, Wolfgang, (82g:73031)**
Jones, Oscar A. C. *See* **Clements, David L., (82h:73018)**
Litvinov, V. G. A modification of the Ritz method for variational equations and its applications to boundary value problems with mixed boundary conditions. (Russian) **(82k:73046)**
Lynn, Paul P. (*with* Hadid, Hassoun A.) Infinite elements with $1/r^n$ type decay. **(82h:65132)**
Meirovitch, Leonard ★Computational methods in structural dynamics. **(82f:73001)**
Rizzo, F. J. (*with* Shippy, D. J.) The boundary integral equation method with application to certain stress concentration problems in elasticity. **(82h:73016)**
Shippy, D. J. *See* **Rizzo, F. J., (82h:73016)**
Ying, Long An (*with* Han, Hou De) The infinite element method for unbounded regions and inhomogeneous problems. (Chinese) **(82j:65085)**

73K35 Random excitation

Ahmed, G. *See* **Paria, G., 82h:73042**
Paria, G. (*with* Ahmed, G.) Stochastic vibration of beam with the effect of shear deformation. **82h:73042**
Sobczyk, Kazimierz Vibrations of structures and stochastic models of structural failures. (Polish. Russian and English summaries) **82d:73055**
Waberski, A. Application of theory of optimal filtering to boundary problems of dynamics of plates. (Polish and Russian summaries) **82i:73039**

secondary classifications:

Curtain, Ruth F. Stability of stochastic partial differential equations. **(82j:60109)**
Tylikowski, A. Dynamic stability of a nonlinear rectangular plate. **(82k:73050)**

73K40 Optimization

Adali, Sarp Optimal rotating column. **82c:73061**
Albul, A. V. (*with* Baničuk, N. V.; Barsuk, A. A.) Optimization of stability of elastic rods under thermal loads. **82a:73042**
Arora, Jasbir S. (*with* Haug, Edward J.) Methods of design sensitivity analysis in structural optimization. **82a:73043**
Atanacković, T. M. Some optimization problems for elastic bodies. **82i:73040**
Baltov, A. (*with* Todorov, St.) The additional load method for solution of optimization problems in combination with the finite element method. (Bulgarian. Russian and English summaries) **82m:73057**
Baničuk, N. V. *See* **Albul, A. V.; et al., 82a:73042**
Barsuk, A. A. *See* **Albul, A. V.; et al., 82a:73042**
Brousse, P. Reduction of the kinematic inequality and optimization of perfectly plastic frameworks. **82d:73056**
Cannarozzi, Agostino A. On the resolution of some unilaterally constrained problems in structural engineering. **82h:73066**
Čerkaev, A. V. *See* **Olhoff, Niels; et al., 82f:73035**
Coleman, Bernard D. (*with* Duffin, Richard J.; Knowles, Gregory P.) A class of optimal design problems with linear inequality constraints. (Italian summary) **82k:73059**
Denus, Krzysztof Multiparameter shape optimization of elastic bars in torsion. **82a:73044**
Didenko, N. I. Optimal distribution of bending stiffness of an elastic freely supported plate. **82i:73041**
Duffin, Richard J. *See* **Coleman, Bernard D.; et al., 82k:73059**
Fedorov, A. V. *See* **Olhoff, Niels; et al., 82f:73035**
Fedorov, V. V. *See* **Krasnoščekov, P. S.; et al., 82c:73062**
Ghalib, M. A. (*with* Makky, S. M.) Minimum deflection under dynamic loading. (Arabic summary) **82k:73060**
Gierliński, J. (*with* Mróz, Zenon) Optimal design of elastic plates and beams taking large deflections and shear forces into account. **82g:73039**
Hamada, Minoru (*with* Seguchi, Yasuyuki; Tada, Yukio) Shape determination problems of structures by the inverse variational principle. II. Buckling and vibration problems. **82m:73058**
Harless, R. I. A method for synthesis of optimal weight structures. **82h:73067**
Haug, Edward J. *See* **Arora, Jasbir S., 82a:73043**
Kim, Seung Woo (*with* Kwak, Byung Man) Optimal design of damped dynamic structures. **82m:73059**
Knowles, Gregory P. *See* **Coleman, Bernard D.; et al., 82k:73059**
Komkov, Vadim Application of invariant variational principles to the optimal design of a column. (German and Russian summaries) **82h:73068**
Krasnoščekov, P. S. (*with* Morozov, V. V.; Fedorov, V. V.) Sequential clustering in internal design problems of engineering systems. **82c:73062**
Kwak, Byung Man *See* **Kim, Seung Woo, 82m:73059**
Lagache, Jean-Marie Treillis de volume minimal dans une région donnée. (English summary) [Minimum volume design of trusses in a given region] **82k:73061**
Lepik, Ülo Application of the control theory for optimal design of nonelastic beams under dynamic loading. (*See* **82g:93003**)
Lur'e, K. A. *See* **Olhoff, Niels; et al., 82f:73035**
Makky, S. M. *See* **Ghalib, M. A., 82k:73060**
Melchers, R. E. Reinforcement minimization of cylindrical shells. (German summary) **82h:73043**
Mironov, A. *See* **Mróz, Zenon, 82j:73058**
Morozov, V. V. *See* **Krasnoščekov, P. S.; et al., 82c:73062**
Mróz, Zenon (*with* Mironov, A.) Optimal design for global mechanical constraints. (Polish and Russian summaries) **82j:73058**
See also **Gierliński, J., 82g:73039**
Olhoff, Niels Optimal design with respect to structural eigenvalues. (*See* **82d:00008**)
(*with* Lur'e, K. A.; Čerkaev, A. V.; Fedorov, A. V.) Sliding regimes and anisotropy in optimal design of vibrating axisymmetric plates. **82f:73035**
de Oliveira, Paula Un problème d'optimisation de structures. (English summary) **82d:73057**
On the optimal design of a plate submitted to a rupture criterion. **82m:73060**
Pappas, M. Improved methods for large scale structural synthesis. **82h:73069**
Prager, William Unexpected results in structural optimization. **82f:73036**
Rikards, R. B. Convexity of some classes of optimization problems for multilayer shells under conditions of stability and vibration. **82b:73044**
Samsonov, A. M. Necessary optimality conditions for stiffness distribution of a rib on an elastic plate. **82j:73059**
Schlüssler, Karl-Heinz On optimal control problems in civil-engineering and technology. **82m:73061**
Seguchi, Yasuyuki *See* **Hamada, Minoru; et al., 82m:73058**
Soonets, K. Optimization of the form of an impulsively loaded two-step rigidly clamped beam. (Russian. English summary) **82m:73062**
Świsterski, W. *See* **Życzkowski, M., (*See* 82g:93003)**
Tada, Yukio *See* **Hamada, Minoru; et al., 82m:73058**
Todorov, St. *See* **Baltov, A., 82m:73057**
Watson, Layne T. (*with* Yang, Wei H.) Methods for optimal engineering design problems based on globally convergent methods. **82j:73060**
Yang, Wei H. *See* **Watson, Layne T., 82j:73060**
Życzkowski, M. (*with* Świsterski, W.) Optimal structural design of flexible beams with respect to creep rupture time. (*See* **82g:93003**)

secondary classifications:

Gemintern, V. I. (*with* Kagan, B. M.) ★Методы оптимального проектирования. (Russian) [Methods for optimal design] **(82g:49026)**
Haug, Edward J. (*with* Rousselet, Bernard) Design sensitivity analysis in structural mechanics. I. Static response variations. **(82j:73046a)**
(*with* Rousselet, Bernard) Design sensitivity analysis in structural mechanics. II. Eigenvalue variations. **(82j:73046b)**
Kagan, B. M. *See* **Gemintern, V. I., (82g:49026)**
Linkwitz, K. Least-squares methods as a tool to calculate and optimize the design of prestressed cable nets and hanging nets. **(82f:51002)**

Litvinov, V. G. (*with* Panteleev, A. D.) Optimization problem for plates of variable thickness. **(82f:49036)**
Panteleev, A. D. *See* **Litvinov, V. G., (82f:49036)**
Rousselet, Bernard *See* **Haug, Edward J., (82j:73046a)** *and* **(82j:73046b)**
Solodovnikov, V. N. Optimization of elastic shells of revolution. **(82g:73043)**
Watson, Layne T. (*with* Yang, Wei H.) Optimal design by a homotopy method. **(82h:58021)**
Yang, Wei H. *See* **Watson, Layne T., (82h:58021)**

73K99 None of the above, but in this section

Atkočiūnas, Juozas (*with* Borkowski, Adam; König, Jan A.) Improved bounds for displacements at shakedown. **82m:73063**
Bharatha, S. (*with* Levinson, M.) A theory of elastic foundations. **82c:73063**
Borkowski, Adam *See* **Atkočiūnas, Juozas; et al., 82m:73063**
Dean, Donald L. (*with* Ramsay, Robert T.) Field analysis of models with multiple node sets along one coordinate. **82g:73040**
König, Jan A. *See* **Atkočiūnas, Juozas; et al., 82m:73063**
Levinson, M. *See* **Bharatha, S., 82c:73063**
Lizarev, A. D. Two fundamental systems of solutions of a class of equations of the mechanics of a deformable body. (Russian) **82d:73058**
Malcolm, D. J. *See* **Vinogradov, O. G., 82m:73064**
Mazzarella, C. (*with* Panzeca, T.) On work-hardening adaptation of discrete structures subjected to dynamic forces in the presence of second-order geometric effects. **82i:73042**
Panzeca, T. *See* **Mazzarella, C., 82i:73042**
Ramsay, Robert T. *See* **Dean, Donald L., 82g:73040**
Rheinboldt, Werner C. Numerical analysis of continuation methods for nonlinear structural problems. **82i:73043**
Romano, Giovanni (*with* Romano, Manfredi) On the solution of structural problems in the presence of unilateral constitutive relations. (Italian. English summary) **82j:73061**
Romano, Manfredi *See* **Romano, Giovanni, 82j:73061**
Schade, D. Topologische Matrizen in den Gleichungen diskreter, ebener, dehnsteifer Schwinger. (English and Russian summaries) **82e:73066**
Vinogradov, O. G. (*with* Malcolm, D. J.) A new algorithm for cable statics. **82m:73064**

secondary classifications:

Arbel, Ami Controllability measures and actuator placement in oscillatory systems. **(82c:93001)**
Baier, Horst J. Mathematical programming in engineering design problems. **(82c:49024)**
Černjavskiĭ, A. G. The relation of geometry and stability of discrete systems. (Russian) **(82g:51029)**
Crapo, Henry Structural rigidity. (French summary) **(82g:51028)**
D'Ambrosio, Ubiratan *See* **Krivošein, L. E.; et al., (82m:45018)**
Friedman, Avner (*with* Pozzi, Gianni A.) The free boundary for elastic-plastic torsion problems. **(82i:35165)**
Krivošein, L. E. (*with* Kutanov, Alymbek; Mangeron, Dumitru Ion; D'Ambrosio, Ubiratan) On a class of integro-differential equations having temporal and local autocontrols as limits of integration. (Spanish. English summary) **(82m:45018)**
Kutanov, Alymbek *See* **Krivošein, L. E.; et al., (82m:45018)**
Leipholz, Horst On topological aspects of Liapunov stability of continuous systems. **(82k:58032)**
Mangeron, Dumitru Ion *See* **Krivošein, L. E.; et al., (82m:45018)**
Portela, Artur Theoretical basis of boundary solutions for the linear theory of structures. **(82h:73017)**
Pozzi, Gianni A. *See* **Friedman, Avner, (82i:35165)**

73Lxx Theory of shells

Amiro, I. Ja. (*with* Zaruc'kiĭ, V. O.) ★Теория ребристых оболочек. (Russian) [Theory of ribbed shells] **82f:73037b**
Čehov, Val. N. *See* **Guz', O. M.; et al., 82f:73037a**
Čehov, Vik. N. *See* **Guz', O. M.; et al., 82f:73037a**
Černyšenko, I. S. *See* **Guz', O. M.; et al., 82f:73037a**
Guz', O. M. (*with* Černyšenko, I. S.; Čehov, Val. N.; Čehov, Vik. N.; Šnerenko, K. I.) ★Теория тонких оболочек, ослабленных отверстиями. (Russian) [Theory of thin shells weakened by holes] **82f:73037a**
Šnerenko, K. I. *See* **Guz', O. M.; et al., 82f:73037a**
Zaruc'kiĭ, V. O. *See* **Amiro, I. Ja., 82f:73037b**
Methods for calculating shells *See* **Guz', O. M.; et al., 82f:73037a** *and* **Amiro, I. Ja.; et al., 82f:73037b**

secondary classifications:

Babič, I. Ju. *See* **Guz', O. M., (82c:73002)**
Guz', O. M. (*with* Babič, I. Ju.) ★Трехмерная теория устойчивости стержней, пластин и оболочек. (Russian) [Three-dimensional theory of the stability of rods, plates and shells] **(82c:73002)**

73L05 Non-Euclidean geometry, tensorial methods [See also 53A45.]

Berdičevskiĭ, V. L. Variational-asymptotic method of constructing a theory of shells. **82k:73062**
Galimov, K. Z. On the nonlinear theory of thin shells of Timošenko's type. (Russian) **82d:73059**
(*with* Nemcev, E. A.) Some mathematical aspects of the theory of shells. (Russian) **82k:73063a**
(*with* Nemcev, E. A.) Some mathematical aspects of the theory of shells. II. (Russian) **82k:73063b**
Nemcev, E. A. *See* **Galimov, K. Z., 82k:73063**

secondary classifications:

Černyh, K. F. Nonlinear theory of isotropically elastic thin shells. **(82h:73059)**
Dmitriev, O. M. *See* **Romanov, Ju. I., (82g:93057)**
Ferrarese, Giorgio The dynamics of thin bidimensional continua: intrinsic formulation of the Cauchy problem. (Italian. English summary) **(82f:73038)**
Jękot, Tomasz The thermoelastic potential and the existence of generalized solutions of the thermomechanics of shallow shells. (Polish. Russian and English summaries) **(82f:73011)**
Romanov, Ju. I. (*with* Dmitriev, O. M.) Analysis of parametrically random systems of structural mechanics on the basis of noncanonical expansions of structural-functional parameters. (Russian) **(82g:93057)**
Zvěrěv, S. M. Integro-differential equation of scattering and radiation of acoustic waves by elastic shells. (Ukrainian. Russian summary) **(82g:76035)**

73L10 Anisotropic shells

Golub, G. P. Computer solution of statics problems for orthotropic shells of revolution of complex form using an improved model. **82d:73060**
Grigorenko, Ja. M. (*with* Timonin, O. M.) Stressed state of laminar shells of revolution taking into account geometrical nonlinearity and shift. (Russian. English summary) **82e:73067**
Kajuk, Ja. F. (*with* Vaščenko, L. F.) Geometric nonlinear deformation of soft shells under a nonsymmetric load. **82d:73061**
Timonin, O. M. *See* **Grigorenko, Ja. M., 82e:73067**
Vaščenko, L. F. *See* **Kajuk, Ja. F., 82d:73061**

secondary classifications:

Bulgaru, O. E. Thermoelastic stresses in an open cylindrical inhomogeneous shell. (Russian) **(82c:73085)**
Čehov, Val. N. *See* **Guz', O. M.; et al., (82f:73037a)**
Čehov, Vik. N. *See* **Guz', O. M.; et al., (82f:73037a)**
Černyšenko, I. S. *See* **Guz', O. M.; et al., (82f:73037a)**
Guz', O. M. (*with* Černyšenko, I. S.; Čehov, Val. N.; Čehov, Vik. N.; Šnerenko, K. I.) ★Теория тонких оболочек, ослабленных отверстиями. (Russian) [Theory of thin shells weakened by holes] **(82f:73037a)**
Šnerenko, K. I. *See* **Guz', O. M.; et al., (82f:73037a)**
Methods for calculating shells *See* **Guz', O. M.; et al., (82f:73037a)**

73L15 Shell dynamics

Babič, D. V. (*with* Horošun, L. P.) Dynamic loss of stability of an instantaneously compressed layered cylindrical shell. **82k:73064**
Ferrarese, Giorgio The dynamics of thin bidimensional continua: intrinsic formulation of the Cauchy problem. (Italian. English summary) **82f:73038**
Horošun, L. P. *See* **Babič, D. V., 82k:73064**
Jakušev, R. S. Stability of a cylindrical shell under the action of a moving surface load. (Russian) **82d:73062**
Lellep, J. (*with* Sawczuk, A.) Optimal project of a cylindrical shell for moderately large deflections. (*See* **82g:93003**)
van der Pauw, L. J. A rigorous set of shell equations derived from the law of conservation of energy. **82d:73063**
Sawczuk, A. *See* **Lellep, J.,** (*See* **82g:93003**)
Solop, S. A. The existence of solutions in the nonlinear theory of oscillations of Reissner shells of revolution. (Russian) **82j:73062**

secondary classifications:

Amiro, I. Ja. (*with* Zaruc'kiĭ, V. O.) ★Теория ребристых оболочек. (Russian) [Theory of ribbed shells] **(82f:73037b)**
Gribnjak, S. T. *See* **Popov, G. Ja., (82h:73012)**
Popov, G. Ja. (*with* Gribnjak, S. T.) Solving problems in mechanics for layered media. **(82h:73012)**
Rikards, R. B. Convexity of some classes of optimization problems for multilayer shells under conditions of stability and vibration. **(82h:73044)**
Zaruc'kiĭ, V. O. *See* **Amiro, I. Ja., (82f:73037b)**
Methods for calculating shells *See* **Amiro, I. Ja.; et al., (82f:73037b)**

73L20 Vibrations of shells

Agarwal, V. K. (*with* Krishna, B.) On torsionless axisymmetric vibrations of transversely isotropic spherical shells. **82j:73063**
Kozlov, S. V. Domains of parametric instability of an orthotropic cylindrical shell with apparent additional masses. (Russian. English summary) **82g:73041**
Krishna, B. *See* **Agarwal, V. K., 82j:73063**
Muljukov, R. M. Oscillations of a thin-walled cylindrical shell due to the action of an inertial moving load. (Russian) **82h:73045**
Smirnov, A. L. Integrals of equations of oscillations of rotating shells of revolution. (Russian. English summary) **82k:73065**
Tovstik, P. E. Free oscillations of long cylindrical shells. (Russian) **82c:73064**
Witt, D. W. Vibrations of a spherical shell with a vibration-damping laminar coating. **82i:73044**

secondary classifications:

Delpak, R. A finite element assessment of natural frequencies of undamped elastic rotational shells. **(82h:73038)**
Žigalko, Ju. P. Fundamental solutions in the theory of thin shells of revolution. (Russian) **(82g:35036)**

73L99 None of the above, but in this section

Argyris, J. H. (*with* Balmer, H.; Kleiber, Michal; Hindenlang, U.) Natural description of large inelastic deformations for shells of arbitrary shape—application of trump element. **82b:73046**

Balmer, H. *See* **Argyris, J. H.; et al., 82b:73046**

Chadaja, F. G. (*with* Girogadze, D. P.; Gogija, A. A.) Calculation of a cylindrical shell-dam of variable thickness. (Russian) **82d:73064**

Cirulis, T. *See* **Varna, Ja. P., 82m:73066**

Dumbadze, A. A. Calculation of the stress state of spherical shells. (Russian. Georgian and English summaries) **82d:73065**

Galimov, K. Z. On the formulation of boundary conditions of shallow shell theory with allowance for lateral shifts. (Russian) **82e:73068**

Galimov, Š. K. On the refined theory of plates and shells of H. M. Muštari. (Russian) **82f:73039**

Gavelja, S. P. Calculation of Green matrices of static problems of the theory of thin shells. (Russian) **82d:73066**

Girogadze, D. P. *See* **Chadaja, F. G.; et al., 82d:73064**

Gjuntner, A. F. (*with* Žgenti, V. S.) On the classical system of differential equations of equilibrium of shells. (Russian) **82i:73045**

Gogija, A. A. *See* **Chadaja, F. G.; et al., 82d:73064**

Gol'denveizer, A. L. Mathematical rigidity of surfaces and physical rigidity of shells. **82a:73045**

Asymptotic method in the theory of shells. (*See* **82d:00008**)

Grigorenko, Ja. M. (*with* Vasilenko, A. T.; Pankratova, N. D.) Solution of problems of statics of laminated shells in a three-dimensional formulation. (Russian. English summary) **82m:73065**

Gubenko, V. S. (*with* Kuznecov, V. N.) Transient deformation of spherical and cylindrical shells in a viscous fluid. **82c:73065**

Hindenlang, U. *See* **Argyris, J. H.; et al., 82b:73046**

Kleiber, Michal Nonlinear, static and dynamic analysis of shells by the finite element method. (Polish. Russian and English summaries) **82e:73069**

See also **Argyris, J. H.; et al., 82b:73046**

Koiter, W. T. The intrinsic equations of shell theory with some applications. **82c:73066**

Koz'mina, E. S. (*with* Laptev, G. I.) Solvability conditions for nonlinear equilibrium equations for thin shells. (Russian) **82a:73046**

Kriegsmann, Gregory A. *See* **Lange, Charles G., 82h:73070**

Kuznecov, V. N. *See* **Gubenko, V. S., 82c:73065**

Lange, Charles G. (*with* Kriegsmann, Gregory A.) The axisymmetric branching behavior of complete spherical shells. **82h:73070**

Laptev, G. I. *See* **Koz'mina, E. S., 82a:73046**

Leszczyński, Hieronim Variational equation of the physically nonlinear theory of shallow shells. (Polish. Russian and English summaries) **82f:73040**

Internal quantities in physically nonlinear shallow shells. (Polish. Russian and English summaries) **82j:73064**

Litvinov, V. G. (*with* Medvedev, N. G.) Complementary methods in the problems of the state of stress in shells of revolution. **82g:73042**

Mal'kov, V. M. Edge effect in a shell of zero Gaussian curvature with a large aperture. (Russian) **82d:73067**

Medvedev, N. G. *See* **Litvinov, V. G., 82g:73042**

Medvedkov, O. I. Determination of deflection of prismatic shells. **82c:73067**

Novikov, V. V. Internal resonances and stability of elastic shells. (Russian) **82e:73070**

Obolašvili, E. I. Some generalizations of the plane theory of elasticity and their relation to the shell theory. **82d:73068**

Ol'šanskiĭ, V. P. Fundamental solutions of equations of shallow shells. (Russian) **82e:73071**

Pankratova, N. D. *See* **Grigorenko, Ja. M.; et al., 82m:73065**

Pietraszkiewicz, Wojciech Some problems of the nonlinear theory of shells. (Polish. Russian and English summaries) **82d:73069**

Ranjan, G. V. (*with* Steele, C. R.) Nonlinear corrections for edge bending of shells. **82a:73047**

Solodovnikov, V. N. Optimization of elastic shells of revolution. **82g:73043**

Srubščik, L. S. Precritical equilibrium of a thin shallow shell of revolution and its stability. **82i:73046**

Steele, C. R. *See* **Ranjan, G. V., 82a:73047**

Valid, Roger Le principe de l'énergie complémentaire en théorie non linéaire des coques. (English summary) **82d:73070**

Varna, Ja. P. (*with* Cirulis, T.) Stress state for shells of revolution with dynamic axially symmetric loading. (Russian) **82m:73066**

Vasilenko, A. T. *See* **Grigorenko, Ja. M.; et al., 82m:73065**

Yen, Shao Wen Buckling of cylindrical shells with spiral stiffeners under uniform compression and torsion. **82c:73068**

Žgenti, V. S. *See* **Gjuntner, A. F., 82i:73045**

Zieliński, A. P. On curvilinear distributions expressed by double Fourier series. (German summary) **82m:73067a**

Errata: "On curvilinear distributions expressed by double Fourier series". **82m:73067b**

secondary classifications:

Bagdoev, A. G. (*with* Movsisjan, L. A.) The modulation equations in nonlinear dispersive media and their application to waves in thin bodies. (Russian. Armenian and English summaries) **(82e:73034)**

Bevilacqua, Luiz *See* **Feijóo, Raúl A.; et al., (82a:73038)**

Čerevackiĭ, V. B. *See* **Kreĭčman, M. M., (82d:53037)**

Čupahin, A. P. The Lie-Bäcklund group for an equation of developable surfaces. (Russian) **(82f:35003)**

Davini, C. One-dimensional problems in the stability of thin shells. **(82e:73048)**

Feijóo, Raúl A. (*with* Jospin, Reinaldo J.; Bevilacqua, Luiz; Taroco, Edgardo) A curvilinear finite element for shells of revolution. **(82a:73038)**

Fujii, Hiroshi Numerical pattern formation and group theory. **(82b:58026)**

Gavelja, S. P. A method for constructing matrices of Green's type for composite shells. (Russian. English summary) **(82m:73052)**

Gibson, John Edward ★Thin shells. **(82f:73032)**

Jospin, Reinaldo J. *See* **Feijóo, Raúl A.; et al., (82a:73038)**

Kačalov, A. P. The pattern of sound wave scattering on a convex shell. **(82g:76029)**

Kazancev, V. A. *See* **Sačenkov, A. V.; et al., (82j:73039)**

Kazantzakis, J. G. *See* **Theocaris, P. S., (82d:65029)**

Konoplev, I. G. *See* **Sačenkov, A. V.; et al., (82j:73039)**

Kreĭčman, M. M. (*with* Čerevackiĭ, V. B.) On the investigation of new forms of shells of revolution. (Russian) **(82d:53037)**

Lee, Doo Sung Stress analysis of shallow shell by finite element method. (Korean summary) **(82m:73054)**

Mansfield, Lois Finite element methods for nonlinear shell analysis. **(82f:65116)**

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Pogorelov, A. V. Geometric methods in the nonlinear theory of elastic shells. (Russian) **(82f:53072)**

Renton, J. D. On the buckling of thick spherical shells under normal pressure. **(82f:73027)**

Sačenkov, A. V. (*with* Konoplev, I. G.; Kazancev, V. A.) Construction of formulas for estimation of stability and strength of shells in solution of problems by the theoretical-experimental method. (Russian) **(82j:73039)**

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Shearer, Michael Bifurcation of axisymmetric buckled states of a thin spherical shell. **(82a:73022)**

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Vorovič, I. I. (*with* Safronenko, V. G.) Use of variational principles in coupled problems of thermoviscoelastic shells. **(82c:73088)**

73Mxx Fractural mechanics

Hilton, P. D. An overview of finite element applications to 3-D and elastic-plastic crack problems. **82c:73069**

73M05 Brittle fracture, cracks

Abeyaratne, Rohan C. Discontinuous deformation gradients away from the tip of a crack in anti-plane shear. **82m:73068**

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Amara, Mohamed (*with* Destuynder, Phillippe; Djaoua, Mohamed) On a finite element scheme for plane crack problems. (*See* **82c:73005**)

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Astaf'ev, V. I. Growth of cracks in creep with account taken of the plastic zone around the apex of the crack. (Russian) **82e:73072**

Atkinson, C. A note on some dynamic crack problems in linear viscoelasticity. (Polish and Russian summaries) **82h:73047**

Crack problems in nonlocal elasticity. (Polish and Russian summaries) **82j:73065**

(*with* Javaherian, H.) Evaluation of stress intensity factors associated with bimaterial cracks. **82a:73048**

Barabaševa, O. A. (*with* Martynjuk, P. A.) Limit equilibrium of a disk crack in an elastic layer. (Russian) **82e:73073**

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Dahan, M. Radial shear stress in a cracked transversely isotropic solid. **82a:73049**

Dal', Ju. M. Plane problems of the theory of cracks, solvable by means of an analytic function. (Russian) **82h:73048**

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Dunayevsky, V. (*with* Achenbach, J. D.) Boundary layer phenomenon in the plastic zone near a rapidly propagating crack tip. **82m:73069**

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Gecit, M. R. A cracked elastic strip bonded to a rigid support. (French summary) **82a:73050**

Graham, G. A. C. (*with* Sabin, G. C. W.) The opening and closing of a growing crack in a linear viscoelastic body that is subject to alternating tensile and compressive loads. (French summary) **82d:73071**

Gurtin, Morton E. (*with* Yatomi, Chikayoshi) On the energy release rate in elastodynamic crack propagation. **82f:73041**

Hai, M. V. Inversion of a system of integral equations of a three-dimensional problem of mathematical fracture theory. (Russian. English summary) **82d:73072**

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Three iterative methods for the numerical determination of stress intensity factors. **82h:73071**

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The effect of couple-stresses on the stress concentration around a moving crack. **82a:73052**

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Kaminskiĭ, A. A. Subcritical crack growth in viscoelastic bodies with variable loads. **82c:73071**

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(*with* Morjaria, Mahesh) Numerical analysis of planar, time-dependent inelastic deformation of plates with cracks by the boundary element method. **82e:73075b**

Nemat-Nasser, S. On stability of the growth of interacting cracks, and crack kinking and curving in brittle solids. (*See* **82c:73005**)
See also **Sumi, Y.; et al., 82f:73042**

Nguyen Quoc Son (*with* Rahimian, Mohammad) Mouvement permanent d'une fissure en milieu élastoplastique. (English summary) **82e:73076**

Novokšenov, V. Ju. (*with* Hannanov, Š. H.) Kinetics of the development of an intercrystalline crack by means of diffusive mass transfer. (Russian) **82k:73067**

Ouyang, Chang On a class of methods for solving problems of random boundary notches and/or cracks. I. Analytic method. (Chinese. English summary) **82e:73077**

Patterson, C. The extended energy method for mixed mode fracture problems. **82k:73068**

Peano, A. (*with* Fanelli, M.; Riccioni, R.; Sardella, L.) Self-adaptive convergence at the crack tip of a dam buttress. (*See* **82i:73003**)

Qi, Jing Tai (*with* Cai, Shu Tang) The relation between crack opening displacement and strain. **82c:73072**

Rahimian, Mohammad *See* **Nguyen Quoc Son, 82e:73076**

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Rice, James R. Some computational problems in elastic-plastic crack mechanics. **82k:73069**

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Schiff, B. (*with* Fishelov, D.; Whiteman, J. R.) Determination of a stress intensity factor using local mesh refinement. **82e:73078**

Simmonds, James G. (*with* Duva, J.) Thickness effects are minor in the energy-release rate integral for bent plates containing elliptic holes or cracks. **82i:73047**

Stolz, Claude *See* **Huy Doung Bui; et al., 82k:73066**

Sumi, Y. (*with* Nemat-Nasser, S.; Keer, L. M.) On stability and postcritical behavior of interactive tension cracks in brittle solids. (German summary) **82f:73042**

Tait, R. J. (*with* Moodie, T. Bryant) On a problem in the dynamic theory of cracks. **82k:73070**

Theocaris, P. S. (*with* Ioakimidis, Nikolaos I.) A numerical method for the solution of plane crack problems in finite media. **82b:73049**

Uhlmann, W. (*with* Kuna, M.) A numerical method for small scale yielding crack problems occurring in a deformation theory. **82m:73070**

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Whiteman, J. R. *See* **Schiff, B.; et al., 82e:73078**

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secondary classifications:

Bolotin, V. V. On a unified theory of fracture. (Russian) **(82e:73079)**

Bui, H. D. (*with* Ehrlacher, A.; Nguyen Quoc Son) Propagation de fissure en thermoélasticité dynamique. (English summary) **(82d:73084)**

Choudhary, Arati *See* **Srivastava, K. N.; et al., (82b:73058)**

Ehrlacher, A. *See* **Bui, H. D.; et al., (82d:73084)**

Farat, Karol Stress and electromagnetic field near a crack tip in elastic dielectric with dispersion. (Russian summary) **(82h:73073)**

Knowles, James K. (*with* Sternberg, Eli) Antiplane shear fields with discontinuous deformation gradients near the tip of a crack in finite elastostatics. **(82j:73038)**

Liu, Jun *See* **Wang, Si Jing, (82b:65143)**

(Luxmoore, A. R.) *See* **Numerical methods in fracture mechanics, (82c:73005)**

Martin, Paul Andrew Diffraction of elastic waves by a penny-shaped crack. **(82k:73023)**

Maz'ja, V. G. (*with* Morozov, N. F.; Plamenevskiĭ, B. A.) Nonlinear bending of a plate with a crack. (Russian) **(82b:35063)**

Morozov, N. F. *See* **Maz'ja, V. G.; et al., (82b:35063)**

Nassar, Elsayed Abdel-Ati M. *See* **Nayfeh, Adnan H., (82d:73053)**

Nayfeh, Adnan H. (*with* Nassar, Elsayed Abdel-Ati M.) Mathematical simulation of singularities for isoparametric elements of arbitrary orders. **(82d:73053)**

Nazarov, S. A. Principle of virtual work and Rice weighting integrals. **(82i:49001)**

Nguyen Quoc Son *See* **Bui, H. D.; et al., (82d:73084)**

Nicholson, J. W. *See* **Simmonds, James G., (82c:73035)**

(Owen, D. R. J.) *See* **Numerical methods in fracture mechanics, (82c:73005)**

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Pande, G. N. Numerical modelling of rocks—possibilities and problems. **(82d:73075)**

Plamenevskiĭ, B. A. *See* **Maz'ja, V. G.; et al., (82b:35063)**

Simmonds, James G. (*with* Nicholson, J. W.) On Sanders' energy-release rate integral and conservation laws in finite elastostatics. **(82k:73035)**

Srivastava, K. N. (*with* Palaiya, R. M.; Choudhary, Arati) Thermal stresses in bonded dissimilar elastic half-spaces containing a penny-shaped crack at the interface. **(82b:73058)**

Sternberg, Eli *See* **Knowles, James K., (82j:73038)**

Wang, Si Jing (*with* Liu, Jun) A finite element simulation on the failure of brittle rocks. **(82b:65143)**

Conference:
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Fracture mechanics ★Numerical methods in fracture mechanics. **(82c:73005)**

Numerical methods in fracture mechanics ★Numerical methods in fracture mechanics. **(82c:73005)**

Swansea ★Numerical methods in fracture mechanics. **(82c:73005)**

73M10 Fatigue

secondary classifications:

Bałaziński, W. (*with* Macha, E.) A real-time method of determination of probable direction of fatigue crack propagation in materials. (*See* **82k:68003**)

Macha, E. *See* **Bałaziński, W., (*See* 82k:68003)**

Reiss, Edward L. A modified two-time method for the dynamic transitions of bifurcation. **(82e:47084)**

73M15 Ductile fracture

73M20 Material instability

secondary classifications:

Nguyen Quoc Son Stabilité et bifurcation en rupture et en plasticité. (English summary) **(82i:73026)**

73M99 None of the above, but in this section

Bolotin, V. V. On a unified theory of fracture. (Russian) **82e:73079**

Fiškov, A. L. *See* **Slepjan, L. I., 82c:73075**

Lucišin, R. M. Allowance for forces of friction in the problem of cleavage of the half-plane. (Ukrainian. Russian summary) (*See* **82d:00007**)

Oniščuk, O. V. (*with* Popov, G. Ja.) Some problems of bending of plates with cracks and thin inclusions. **82g:73044**

Popov, G. Ja. *See* **Oniščuk, O. V., 82g:73044**

Slepjan, L. I. (*with* Fiškov, A. L.) A two-dimensional mixed problem with an irregularly moving boundary condition separation point. (Russian) **82c:73075**

secondary classifications:

Borodačev, A. N. On the solution of boundary value problems of the theory of elasticity for an elliptical disc. (Russian) **(82m:73016)**

Carr, Jack (*with* Malhardeen, M. Z. M.) Stability of nonconservative linear systems. **(82b:34079)**

Malhardeen, M. Z. M. *See* **Carr, Jack, (82b:34079)**

Mujumdar, Prabha *See* **Palaiya, R. M., (82h:73029)**

Palaiya, R. M. (*with* Mujumdar, Prabha) Shear wave interaction with a pair of interface strips. **(82h:73029)**

Visscher, William M. Scattering of elastic waves from planar cracks in isotropic media. **(82a:73017)**

73Nxx Geophysical solid mechanics [See also 86-XX.]

73N05 Global dynamics

73N10 Earthquake problems

Housner, George W. The momentum-balance method in earthquake engineering. **82a:73054**

73N99 None of the above, but in this section

Guz', O. M. Problems of the stability of excavations. (Russian) **82a:73055**

Pande, G. N. Numerical modelling of rocks—possibilities and problems. **82d:73075**

secondary classifications:

Derski, Włodzimierz (*with* Kowalski, Stefan J.) On the motion and mass continuity equations in a porous fluid-saturated medium. (French and Russian summaries) **(82i:73005)**

Kowalski, Stefan J. Comparison of the Biot equations of motion for a fluid-saturated porous solid with those of Derski. (Russian summary) **(82i:73037)**
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73Pxx Biomechanics of solids

73P05 Mathematical models of biological materials

Bagchi, Manish C. (*with* Sinha, D. K.) Some aspects of biomechanical problems on fracture mechanics parameters in tensile forces. **82h:73050**
Keller, Joseph B. Tendril shape and lichen growth. **82e:73080**
Sinha, D. K. *See* **Bagchi, Manish C., 82h:73050**

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Aizawa, Yōji (*with* Shimizu, Hiroshi) An exact analysis of the sliding motion in contractile system: a simplified model of muscle system. **(82k:92018)**
Childress, Stephen (*with* Percus, J. K.) Modeling of cell and tissue movements in the developing embryo. **(82k:92022)**
Demiray, Hilmi Some constitutive relations for soft biological tissues. (Turkish summary) **(82k:92023)**
Frolow, Igor Infinitesimal contact transformations and their applications to abstract growth patterns. **(82j:92004)**
Hoppensteadt, Frank C. (*with* Jäger, Willi) Pattern formation by bacteria. **(82j:92054)**
Jäger, Willi *See* **Hoppensteadt, Frank C., (82j:92054)**
Percus, J. K. *See* **Childress, Stephen, (82k:92022)**
Shimizu, Hiroshi *See* **Aizawa, Yōji, (82k:92018)**
Végh, Ludevit Hexagonal patterns as natural forms. **(82g:92010)**

73P10 Mechanics response

secondary classifications:

Babič, V. M. (*with* Novoselova, S. M.) On basilar membrane vibration in the cochlea of mammals. (Russian. English summary) **(82k:92010)**
Fich, S. *See* **Min, B. G.; et al., (82k:92013)**
Holmes, Mark H. Low frequency asymptotics for a hydroelastic model of the cochlea. **(82k:92015)**
Min, B. G. (*with* Welkowitz, W.; Fich, S.) Frequency analysis of time-varying elastance model of the left ventricle. **(82k:92013)**
Novoselova, S. M. *See* **Babič, V. M., (82k:92010)**
Welkowitz, W. *See* **Min, B. G.; et al., (82k:92013)**

73P99 None of the above, but in this section

secondary classifications:

Borsboom, M. J. A. (*with* Kalker, J. J.; Viergever, M. A.) A geometrically nonlinear model of the cochlea. **(82e:92010)**
Huang, Wen Qi (*with* Zhan, Shu Hao) A quasiphysical method of solving packing problems. **(82h:52002)**
Kalker, J. J. *See* **Borsboom, M. J. A.; et al., (82e:92010)**
Viergever, M. A. *See* **Borsboom, M. J. A.; et al., (82e:92010)**
Zhan, Shu Hao *See* **Huang, Wen Qi, (82h:52002)**

73Q05 Soil mechanics

Borcia, Ecaterina On the application of the deformation theory of plasticity in soil mechanics. **82d:73076**
Dudukalenko, V. V. (*with* Smyslov, A. Ju.) On the theory of deformation of soil with a porous structure. (Russian) **82j:73066**
Gudehus, G. A comparison of some constitutive laws for soils under radially symmetric loading and unloading. **82c:73076**
de Jong, G. de Josselin A limit theorem for soils. **82b:73051**
Korneev, V. G. Numerical solution of problems of plastic flow theory. (Russian) **82h:73052**
Kubik, Józef Permeability tensor and porosity of material with rectilinear channels. (Russian summary) **82h:73072**
Liu, Hon H. *See* **Sandhu, R. S., 82e:73081**
Sandhu, R. S. (*with* Liu, Hon H.) Analysis of consolidation of viscoelastic soils. **82e:73081**
Smyslov, A. Ju. *See* **Dudukalenko, V. V., 82j:73066**
Villa, L. T. A note on behavior of solutions of consolidation equations in soil mechanics. **82e:73082**

secondary classifications:

Booker, J. R. (*with* Small, J. C.) Finite element analysis of problems with infinitely distant boundaries. **(82i:73038)**
Dzięcielak, Ryszard Propagation of discontinuity waves in a fluid-saturated porous medium. (Polish. English, Spanish and Russian summaries) **(82k:73027)**
Feijóo, Raúl A. *See* **Moura, Carlos A.; et al., (82d:73028)**
Moura, Carlos A. (*with* Raupp, Marco A.; Feijóo, Raúl A.) Analysis of a mathematical model for the motion of a pile thrust into the soil. **(82d:73028)**
Raniecki, Bogdan Uniqueness criteria in solids with nonassociated plastic flow laws at finite deformations. (Russian summary) **(82g:73023)**
Raupp, Marco A. *See* **Moura, Carlos A.; et al., (82d:73028)**
Small, J. C. *See* **Booker, J. R., (82i:73038)**

73R05 Electromagnetic elasticity

Bielski, Włodzimierz (*with* Matysiak, Stanisław) Green functions for some problems of electroelasticity. (Russian summary) **82a:73056**
Cypkin, A. G. *See* **Sedov, L. I., 82h:73076**
Dandapath, S. C. A note on a variational method for electrothermoelastic vibration analysis. **82d:73077**
Farat, Karol Stress and electromagnetic field near a crack tip in elastic dielectric with dispersion. (Russian summary) **82h:73073**
Ghosh, S. C. A note on the solution of boundary value problems in electrostriction with rigid limaçon insert. **82c:73077**
Kazarjan, K. B. On the problem of magnetoelastic vibrations of a plate, taking account of the Hall effect. (Russian. Armenian and English summaries) **82c:73078**
Krotov, V. F. Space-time deformations of an elastic medium and the equations of electrodynamics. **82c:73079**
Kundu, K. K. Disturbances in a semi-infinite piezoelectric solid under the influence of time-dependent flow of heat. **82d:73078**
Madan, V. P. (*with* Rogers, Colin) Correspondence principle for plane strain problems in magnetothermoviscoelasticity. **82h:73074**
Matysiak, Stanisław *See* **Bielski, Włodzimierz, 82a:73056**
Mayne, Georges Une théorie macroscopique non linéaire des diélectriques élastiques dispersifs, non dissipatifs, anisotropes, comportant plusieurs espèces de charges. **82h:73075**
Ravvin, I. S. Acoustic-wave instabilities in anisotropic piezosemiconductors. (*See* **82j:82002**)
Rogers, Colin *See* **Madan, V. P., 82h:73074**
Romano, Antonio A macroscopic theory of thermoelastic dielectrics. (Italian summary) **82a:73057**
Sedov, L. I. (*with* Cypkin, A. G.) On the construction of models of continuous media interacting with an electromagnetic field. **82h:73076**
Teramo, Antonio On the influence of a magnetic field on the propagation of waves of discontinuity in a particular elastic medium. (Italian. English summary) **82d:73079**

secondary classifications:

Kranyš, Miroslav Relativistic electrodynamics of dissipative elastic media. (French summary) **(82b:83054)**
Matysiak, Stanisław A plane contact problem in the linear theory of piezoelectroelasticity. (Russian summary) **(82e:73086)**

73Sxx Micromechanics of solids

73S05 Dislocation theory

Callias, Constantine (*with* Markenscoff, Xanthippi) The nonuniform motion of a supersonic dislocation. **82k:73071**
Hecht, Friedrich-Karl (*with* Tiebel, Reinhard; Schütte, Fritz-Joachim) Schallausbreitung in mikroinhomogenen Medien. (Russian and English summaries) **82j:73067**
Markenscoff, Xanthippi *See* **Callias, Constantine, 82k:73071**
Schütte, Fritz-Joachim *See* **Hecht, Friedrich-Karl; et al., 82j:73067**
Tiebel, Reinhard *See* **Hecht, Friedrich-Karl; et al., 82j:73067**
Vakulenko, A. A. Representation of dislocations and cracks in an elastic body by elementary singularities. (Russian) **82e:73083**

73S99 Other micromechanics

Suquet, Pierre-M. Approche par homogénéisation d'une forme d'endommagement. (English summary) **82i:73048**

secondary classifications:

Talbot, D. R. S. (*with* Willis, J. R.) The effective sink strength of a random array of voids in irradiated material. **(82d:82070)**
Willis, J. R. *See* **Talbot, D. R. S., (82d:82070)**
Zanfir, Ştefan On the solution of elasticity for dipolar bodies. (Romanian. English summary) **(82f:73007)**

73T05 Contact problems

Ahundov, M. B. *See* **Amenzade, Ju. A.; et al., 82a:73059**
Akopjan, V. N. On the contact of a circular disk with two rectangles under temperature effects. (Russian. Armenian and English summaries) **82d:73080**
Amenzade, Ju. A. Stamping of a system of rigid rollers into an elastic ring. (Russian) **82a:73058**
(*with* Ahundov, M. B.; Ėfendieva, S. A.) Pressing of two rigid symmetrical stamps into a ring. (Russian. Azerbaijani and English summaries) **82a:73059**
Artjuhin, Ju. P. One-dimensional contact problems for thin-walled transversally isotropic elements. (Russian) **82g:73045**
Contact problems for circular plates and spherical shells. (Russian) **82m:73071**
Babeško, V. A. On the theory of three-dimensional contact problems for anisotropic media. (Russian) **82e:73084**
Bakradze, I. D. *See* **Giorgašvili, L. G.; et al., 82c:73081**
Bašeleišvili, M. O. (*with* Bicadze, L. P.) A problem on the contact between two layers of different materials. (Russian. Georgian and English summaries) **82c:73080**
Bézine, Gérard *See* **Fortuné, Danielle, 82k:73073**
Bicadze, L. P. *See* **Bašeleišvili, M. O., 82c:73080**
Cagareli, I. I. *See* **Giorgašvili, L. G.; et al., 82c:73081**
Carjuk, L. B. Self-affine symmetric problems of the imbedding of a rigid stamp. (Russian) **82k:73072**
Efendieva, S. A. *See* **Amenzade, Ju. A.; et al., 82a:73059**
Fortuné, Danielle (*with* Bézine, Gérard) Sur le contact sans frottement de deux plaques chargées en flexion. (English summary) [On the frictionless contact of two bending plates] **82k:73073**
Gačečiladze, R. I. Some modified boundary-contact problems of statics of the classical and moment theory of elasticity. (Russian. Georgian and English summaries) **82h:73077**

Galin, L. A. ★Контактные задачи теории упругости и вязкоупругости. (Russian) [Contact problems in the theory of elasticity and viscoelasticity] **82d:73081**

Giorgašvili, L. G. (*with* Meladze, R. V.; Cagareli, I. I.; Bakradze, I. D.) Solution of fundamental boundary contact problems of the theory of elasticity in the case of a many-layered infinite cylinder. (Russian. Georgian and English summaries) **82c:73081**

Gorjačeva, I. G. Plane and axisymmetric contact problems for rough elastic bodies. **82h:73078**

Grilí'ckiĭ, D. V. (*with* Kizyma, Ja. M.) ★Осесимметричные контактные задачи теории упругости и термоупругости. (Russian) [Axially symmetric contact problems of the theory of elasticity and thermoelasticity] **82k:73074**

Guz', O. M. Contact problems of the theory of elasticity for a half-plane with initial stresses. **82e:73085**

Janovský, Vladimír (*with* Procházka, Petr) Contact problem of two elastic bodies. I, II, III. (Russian and Slovak summaries) **82b:73053**

Kalker, J. J. *See* **Panek, Carl, 82b:73054**

Katamadze, R. G. Existence of the solution of a contact problem of the theory of elasticity. (Russian. Georgian and English summaries) **82j:73068**

On the solution of a new boundary-contact problem of the theory of elasticity. (Russian. Georgian and English summaries) **82h:73079**

Kikuchi, Noboru (*with* Song, Young Joon) Penalty/finite-element approximations of a class of unilateral problems in linear elasticity. **82k:73075**

Kizyma, Ja. M. *See* **Grilí'ckiĭ, D. V., 82k:73074**

Kravčuk, A. S. Formulation of the problem of contact between several deformable bodies as a nonlinear programming problem. **82m:73072**

On the theory of contact problems taking account of friction on the contact surface. **82g:73046**

(*with* Vasil'ev, V. A.) Numerical methods of solving the contact problem for finite linearly and nonlinearly elastic bodies. **82g:73047**

Li, Chun *See* **Soong, T. C., 82a:73060**

Makarjan, V. S. (*with* Papojan, S. O.) On a contact problem for an elastic half-space with a semi-infinite cylindrical cavity. (Russian. Armenian and English summaries) **82c:73082**

Matysiak, Stanisław A plane contact problem in the linear theory of piezoelectroelasticity. (Russian summary) **82e:73086**

Meladze, R. V. *See* **Giorgašvili, L. G.; et al., 82c:73081**

Nguyễn Văn Ngọc Solution of a periodic contact problem for an elastic strip by the paired equation method. (Russian) **82i:73049**

Panek, Carl (*with* Kalker, J. J.) Three-dimensional contact of a rigid roller traversing a viscoelastic half space. **82b:73054**

Papojan, S. O. *See* **Makarjan, V. S., 82c:73082**

Popov, G. Ja. Biorthogonal expansions in problems of mechanics. **82f:73043**

Procenko, V. S. (*with* Solov'ev, A. I.) The symmetric contact problem for a compound strip. (Russian. English summary) **82d:73082**

Procházka, Petr *See* **Janovský, Vladimír, 82b:73053**

Prokof'ev, B. M. A contact problem for a compound wedge. (Russian) **82d:73083**

Prusov, I. A. (*with* Savenkov, V. A.) Integral equation of a contact problem of elasticity theory for an isotropic band. (Russian) **82k:73076**

Rimskiĭ, V. K. A comparative characteristic of numerical methods of solution of contact problems of dynamic elasticity theory. (Russian) **82c:73083**

Rokva, Ž. P. Numerical solution of some contact problems of the plane theory of elasticity. (Russian. Georgian and English summaries) **82h:73055**

Savenkov, V. A. *See* **Prusov, I. A., 82k:73076**

Solov'ev, A. I. *See* **Procenko, V. S., 82d:73082**

Song, Young Joon *See* **Kikuchi, Noboru, 82k:73075**

Soong, T. C. (*with* Li, Chun) On the unbounded contact between plates and layered cylinders. **82a:73060**

Spektor, A. A. Asymptotic behavior of the solutions of some three-dimensional contact problems of slip and adhesion near the division lines of boundary conditions. (Russian. Armenian and English summaries) **82h:73080**

Vasil'ev, V. A. *See* **Kravčuk, A. S., 82g:73047**

Wickham, G. R. Short-wave radiation from a rigid strip in smooth contact with a semi-infinite elastic solid. **82c:73084**

secondary classifications:

Aleksandrov, V. M. (*with* Sumbatjan, M. A.) Asymptotic solution of convolution-type integral equations with a logarithmic singularity of the transform of the kernel, and applications in problems of mechanics. **(82k:45004)**

Babeško, V. A. (*with* Rumjancev, A. N.) Vibration of a stamp partially adhering to an elastic medium. **(82j:73022)**

On the theory of mixed problems in arbitrary domains. (Russian) **(82k:45005)**

Bašeleĭšvili, M. O. (*with* Giorgašvili, L. G.; Zazašvili, Š. P.) Effective solution of some contact boundary problems of statics for composite isotropic bodies. (Russian. Georgian and English summaries) **(82a:73011)**

Cagareli, I. I. Effective solution of some boundary contact problems of thermoelastostatics. (Russian. Georgian and English summaries) **(82h:73056)**

Cai, Hai Tao The problem of periodic contact in the plane theory of elasticity. (Chinese) **(82h:73007)**

Dhawan, G. K. An asymmetric mixed boundary value problem of a transversely isotropic half-space subjected to a moment by an annular rigid punch. **(82j:73009)**

Duvaut, Georges Thermoélasticité avec contact unilatéral. **(82k:73080)**

Fortuné, Danielle Problème unilatéral lié au contact sans frottement d'une plaque encastrée et d'une plaque "simplement posée". (English summary) [A one-sided problem concerning the frictionless contact between a clamped plate and a simply supported plate] **(82k:49016)**

Giorgašvili, L. G. *See* **Bašeleĭšvili, M. O.; et al., (82a:73011)**

Guo, Zhong Heng "Generalized substructure method" in finite element analysis of elastic contact problems. **(82d:73051)**

Haslinger, Jaroslav *See* **Nečas, Jindřich; et al., (82a:49015)**

Jarušek, Jiří *See* **Nečas, Jindřich; et al., (82a:49015)**

Kašin, Ju. A. (*with* Kravčenko, L. G.) Equilibrium of a rod with released constraints under supercritical loads (two-dimensional problem). (Russian) **(82e:73045)**

Keller, Joseph B. Some bubble and contact problems. **(82a:76010)**

Kravčenko, L. G. *See* **Kašin, Ju. A., (82e:73045)**

Kuz'menko, V. I. On the variational method in the theory of contact problems for nonlinearly elastic laminated bodies. **(82k:73017)**

Luk'janenko, V. A. An exceptional case of the equation of smoothly dynamic transition. (Russian) **(82e:45011)**

Nečas, Jindřich (*with* Jarušek, Jiří; Haslinger, Jaroslav) On the solution of the variational inequality to the Signorini problem with small friction. (Italian summary) **(82a:49015)**

Rimskiĭ, V. K. Wave processes in a viscoelastic medium. (Russian) **(82g:73024)**

Rumjancev, A. N. *See* **Babeško, V. A., (82j:73022)**

Sumbatjan, M. A. *See* **Aleksandrov, V. M., (82k:45004)**

Zazašvili, Š. P. *See* **Bašeleĭšvili, M. O.; et al., (82a:73011)**

73U05 Thermomechanics of solids [See also 73B30.]

Bežuašvili, Ju. A. *See* **Burčuladze, T. V., 82k:73078**

Bressan, Aldo Thermomechanic shock waves in elastic materials and viscous fluids. (Italian summary) **82k:73077**

Bressan, Sergio A theory of the propagation of thermomechanical wave acceleration in continua. (Italian. English summary) **82j:73069**

Bui, H. D. (*with* Ehrlacher, A.; Nguyen Quoc Son) Propagation de fissure en thermoélasticité dynamique. (English summary) **82d:73084**

Bulgaru, O. E. Thermoelastic stresses in an open cylindrical inhomogeneous shell. (Russian) **82c:73085**

Burčuladze, T. V. Boundary value problems of elastothermal diffusion solved in quadratures. (Russian. Georgian and English summaries) **82j:73070**

The mathematical theory of boundary value problems of thermodiffusion in deformable elastic solids. (Russian) **82d:73085**

(*with* Bežuašvili, Ju. A.) Three-dimensional dynamic problems of the conjugate theory of thermoelastic diffusion. (Russian) **82k:73078**

Cagareli, I. I. Effective solution of some boundary contact problems of thermoelastostatics. (Russian. Georgian and English summaries) **82h:73056**

Chandrasekharaiah, D. S. Wave propagation in a thermoelastic half-space. **82k:73079**

Chaudouet, A. (*with* Loubignac, G.) Analysis of bodies made of incompressible material under thermal loading by the boundary integral equation method. (*See* **82g:80001**)

Chen, Yu *See* **Davis, Julian, 82b:73057**

Choudhary, Arati *See* **Srivastava, K. N.; et al., 82h:73058**

Courbon, Jean Équilibre d'une poutre chauffée reposant sur un plan horizontal indéformable. (English summary) **82d:73086**

Davis, Julian (*with* Chen, Yu) Thermoelastic wave propagation. **82b:73057**

Duvaut, Georges Thermoélasticité avec contact unilatéral. **82k:73080**

Ehrlacher, A. *See* **Bui, H. D.; et al., 82d:73084**

Gur'janov, N. G. A circular plate subjected to thermal shock. (Russian) **82a:73061**

Jentsch, Lothar Bemerkung zum Castiglianoschen Prinzip. **82a:73062**

Kit, G. S. (*with* Krivcun, M. G.) On the solution of a two-dimensional mixed problem of thermoelasticity for bodies with cracks. (Russian. English summary) **82j:73071**

Kopisz, Małgorzata Space-time coordinate transformations in continuum mechanics. Invariable equations of thermomechanics. (Russian summary) **82i:73050**

Krivcun, M. G. *See* **Kit, G. S., 82j:73071**

Loubignac, G. *See* **Chaudouet, A., (*See* 82g:80001)**

Macovei, T. Thermal stresses in anisotropic micropolar elastic cylinders. **82i:73051**

Naval, I. K. *See* **Sabodaš, P. F., 82c:73086**

Nemirovskiĭ, Ju. V. (*with* Šlemenzon, K. M.) Dynamical compactness of connected thermoelastic waves in continuous-nonhomogeneous media. (Russian) **82k:73081**

Nguyen Quoc Son *See* **Bui, H. D.; et al., 82d:73084**

Njašin, Ju. I. (*with* Trusov, P. V.) An approach to control of the level of residual stresses. (Russian) **82a:73063**

Palaiya, R. M. *See* **Srivastava, K. N.; et al., 82h:73058**

Sabodaš, P. F. (*with* Naval, I. K.) Nonstationary thermoelastic waves in a closed spherical shell under local heating. (Russian) **82c:73086**

Safronenko, V. G. *See* **Vorovič, I. I., 82c:73088**

Šaldyrvan, V. A. Three-dimensional thermoelasticity problems for transversally isotropic plates. **82a:73064**

Sapondžjan, O. M. Bending of a thin plate under partial heating. (Russian. Armenian and English summaries) **82c:73087**

Senčenkov, I. K. Extremal principles of the theory of small thermoviscoelastic deformations superposed on fully established finite deformations. **82e:73087**

Šlemenzon, K. M. *See* **Nemirovskiĭ, Ju. V., 82k:73081**

Solov'ev, A. P. Nonlinear elastic strains of an unevenly heated circular plate. **82d:73087**

Srivastava, K. N. (*with* Palaiya, R. M.; Choudhary, Arati) Thermal stresses in bonded dissimilar elastic half-spaces containing a penny-shaped crack at the interface. **82h:73058**

Švec', R. M. A variational theorem for an interconnected problem of the thermoelasticity of thin shells. (Russian) **82k:73082**

Tanaka, Kikuaki (*with* Tanaka, Masataka) A boundary element formulation for coupled thermoelastic problems. I. Governing integral equations. **82h:73081**

Tanaka, Masataka *See* **Tanaka, Kikuaki, 82h:73081**

Trusov, P. V. *See* **Njašin, Ju. I., 82a:73063**

Vorovič, I. I. (*with* Safronenko, V. G.) Use of variational principles in coupled problems of thermoviscoelastic shells. **82c:73088**

Wang, Hong Gang The fundamental equations in the solution of a plane thermoelasticity problem by the finite element method. (Chinese. English summary) **82e:73088**

Zabov, L. M. A semi-inverse method in quasistatic problems of nonlinear thermoelasticity. (Russian) **82j:73072**

secondary classifications:

Acharya, Debipada (*with* Sengupta, Pran Ranjan) Lamb's plane problem in micropolar-elastic medium under influence of temperature. (Russian summary) **(82a:73003)**
Aderogba, K. The determination of thermal stresses in dissimilar media. **(82c:73013)**
Akopjan, V. N. On the contact of a circular disk with two rectangles under temperature effects. (Russian. Armenian and English summaries) **(82d:73080)**
Albul, A. V. (*with* Baničuk, N. V.; Barsuk, A. A.) Optimization of stability of elastic rods under thermal loads. **(82a:73042)**
Baničuk, N. V. *See* **Albul, A. V.; et al., (82a:73042)**
Barsuk, A. A. *See* **Albul, A. V.; et al., (82a:73042)**
Carini, Giovanni On the first principle of thermodynamics in the mechanics of classical continua and in relativistic fluid dynamics. (Italian. English summary) **(82f:80001)**
Dandapath, S. C. A note on a variational method for electrothermoelastic vibration analysis. **(82d:73077)**
Dobruškin, V. A. Investigation of the problem on simultaneous thermal and mechanical shocks onto a composite finite rod. (Russian. English summary) **(82c:73018)**
Grilickiĭ, D. V. (*with* Kizyma, Ja. M.) ★Осесимметричные контактные задачи теории упругости и термоупругости. (Russian) [Axially symmetric contact problems of the theory of elasticity and thermoelasticity] **(82k:73074)**
Kizyma, Ja. M. *See* **Grilickiĭ, D. V., (82k:73074)**
Korenev, B. G. ★Задачи теории теплопроводности и термоупругости. (Russian) [Problems of the theory of heat conductivity and thermoelasticity] **(82e:80004)**
Lenjuk, M. P. *See* **Val'kovskaja, V. I., (82d:73041)**
Madan, V. P. (*with* Rogers, Colin) Correspondence principle for plane strain problems in magnetothermoviscoelasticity. **(82h:73074)**
Morro, Angelo Quasilinear systems and waves in thermoviscous fluid dynamics. (Italian summary) **(82h:76003)**
Panek, Carl A thermomechanical example of auto-oscillation. **(82c:80010)**
Plavšić, M. (*with* Vukobrat, M.) Thermodiffusion in micropolar elastic plates. (Serbo-Croatian. English summary) **(82e:73007)**
Rogers, Colin *See* **Madan, V. P., (82h:73074)**
Romano, Antonio A macroscopic theory of thermoelastic dielectrics. (Italian summary) **(82a:73057)**
Sengupta, Pran Ranjan *See* **Acharya, Debipada, (82a:73003)**
Smirnov, V. N. Equations of generalized thermoelasticity of Cosserat medium. **(82f:73009)**
Val'kovskaja, V. I. (*with* Lenjuk, M. P.) Vibration of rods under the action of random heat fluxes. (Russian. English summary) **(82d:73041)**
Vukobrat, M. *See* **Plavšić, M., (82e:73007)**

76–XX FLUID MECHANICS {For general continuum mechanics, see 73Bxx, or other parts of 73–XX.}

secondary classifications:

(Batchelor, G. K.) *See* **Special issue: Editorial reflections on the development of fluid mechanics, (82g:76002)**
Lamb, George L., Jr. ★Elements of soliton theory. **(82f:35165)**
(Moffatt, H. K.) *See* **Special issue: Editorial reflections on the development of fluid mechanics, (82g:76002)**
Fluid mechanics ★25th anniversary issue: editorial reflections on the development of fluid mechanics. **(82g:76002)**
Special issue:
Editorial reflections on the development of fluid mechanics ★25th anniversary issue: editorial reflections on the development of fluid mechanics. **(82g:76002)**

76–01 Elementary exposition, textbooks

secondary classifications:

Baldock, G. R. (*with* Bridgeman, T.) ★Mathematical theory of wave motion. **(82h:73001)**
Bridgeman, T. *See* **Baldock, G. R., (82h:73001)**
Cole, Julian D. *See* **Kevorkian, Jerry, (82g:34082)**
Fetter, Alexander L. (*with* Walecka, John Dirk) ★Theoretical mechanics of particles and continua. **(82d:70001)**
(Germain, Paul) *See* **Obala, J., (82k:00005)**
Imai, Isao ★Conformal mappings and their applications. (Japanese) **(82j:30013)**
Kadomcev, B. B. ★Phénomènes collectifs dans les plasmas. (French) [Collective phenomena in plasma] **(82k:76079)**
Kevorkian, Jerry (*with* Cole, Julian D.) ★Perturbation methods in applied mathematics. **(82g:34082)**
Kowalchuck, W. On self-similarity. (Spanish summary) **(82g:00012)**
Obala, J. ★Exercices et problèmes de mécanique des milieux continus. (French) [Exercises and problems in the mechanics of continuous media] **(82k:00005)**
(Partčevskiĭ, O.) *See* **Kadomcev, B. B., (82k:76079)**
Stumpf, F. B. ★Analytical acoustics. **(82i:76077)**
Walecka, John Dirk *See* **Fetter, Alexander L., (82d:70001)**

76–02 Advanced exposition (research surveys, monographs, etc.)

Babskiĭ, V. G. (*with* Kopačevs'kiĭ, N. D.; Myškis, A. D.; Slobožanin, L. A.; Tjupcov, A. D.) On some unsolved problems of zero-gravity hydromechanics. **82a:76001**
Barenblatt, G. I. ★Подобие, автомодельность, промежуточная асимптотика. (Russian) [Similarity, self-similarity, and intermediate asymptotics] **82c:76001a**
★Similarity, self-similarity, and intermediate asymptotics. **82c:76001b**
Dem'janov, Ju. A. (*with* Sekrieru, G. V.; Igošin, A. I.; Kireev, V. T.; Pinskiĭ, V. L.) ★Одномерные нестационарные течения реального газа. (Russian) [One-dimensional transient flows of a real gas] **82c:76002**
Godunov, S. K. (*with* Zabrodin, A. V.; Ivanov, M. Ja.; Kraĭko, A. N.; Prokopov, G. P.) ★Résolution numérique des problèmes multidimensionnels de la dynamique des gaz. (French) [Numerical solution of multidimensional problems of gas dynamics] **82c:76003**
Igošin, A. I. *See* **Dem'janov, Ju. A.; et al., 82c:76002**
Ivanov, A. N. ★Гидродинамика развитых кавитационных течений. (Russian. English summary) [Hydrodynamics of developed cavitating flows] **82a:76002**
Ivanov, M. Ja. *See* **Godunov, S. K.; et al., 82c:76003**
Kireev, V. T. *See* **Dem'janov, Ju. A.; et al., 82c:76002**
Kopačevs'kiĭ, N. D. *See* **Babskiĭ, V. G.; et al., 82a:76001**
Kraĭko, A. N. *See* **Godunov, S. K.; et al., 82c:76003**
(Lumley, John L.) *See* **Annual review of fluid mechanics, 82f:76001**
Monahov, V. N. (*with* Plotnikov, P. I.) Quasiconformal mappings and problems of hydrodynamics. (Russian) **82e:76001**
Myškis, A. D. *See* **Babskiĭ, V. G.; et al., 82a:76001**
Pinskiĭ, V. L. *See* **Dem'janov, Ju. A.; et al., 82c:76002**
(Platonov, Valeri) *See* **Godunov, S. K.; et al., 82c:76003**
Plotnikov, P. I. *See* **Monahov, V. N., 82e:76001**
Prokopov, G. P. *See* **Godunov, S. K.; et al., 82c:76003**
Ryžov, O. S. Asymptotic methods in fluid dynamics. (Russian) **82e:76002**
Sekrieru, G. V. *See* **Dem'janov, Ju. A.; et al., 82c:76002**
Slobožanin, L. A. *See* **Babskiĭ, V. G.; et al., 82a:76001**
(Stein, Norman) *See* **Barenblatt, G. I., 82c:76001b**
Stewartson, Keith d'Alembert's paradox. **82k:76001**
Tjupcov, A. D. *See* **Babskiĭ, V. G.; et al., 82a:76001**
(Van Dyke, Milton) *See* **Barenblatt, G. I., 82c:76001b** *and* **Annual review of fluid mechanics, 82f:76001**
(Wehausen, J. V.) *See* **Annual review of fluid mechanics, 82f:76001**
Zabrodin, A. V. *See* **Godunov, S. K.; et al., 82c:76003**
(Zel'dovič, Ja. B.) *See* **Barenblatt, G. I., 82c:76001b**
Annual review of fluid mechanics ★Annual review of fluid mechanics. Vol. 13. **82f:76001**
Fluid mechanics ★Annual review of fluid mechanics. Vol. 13. **82f:76001**

secondary classifications:

Aksent'ev, L. A. (*with* Il'inskiĭ, N. B.; Salimov, R. B.) On V. N. Monahov's book: *Boundary value problems with free boundaries for elliptic systems of equations* ["Nauka" Sibirsk. Otdel., Novosibirsk, 1977; MR 57 #16979]. (Russian) **(82m:35045)**
Bullough, Robin K. Solitons: inverse scattering theory and its applications. **(82m:35124)**
See also **Solitons, (82m:35001)**
(Carter, S. R.) *See* **Poston, Tim; et al., (82i:58019)**
(Caudrey, Philip J.) *See* **Solitons, (82m:35001)**
(Černavskiĭ, A. V.) *See* **Poston, Tim; et al., (82i:58019)**
Čuškin, P. I. *See* **Voskresenskiĭ, G. P., (82k:76043)**
Drazin, P. G. (*with* Reid, William Hill) ★Hydrodynamic stability. **(82h:76021)**
Il'inskiĭ, N. B. *See* **Aksent'ev, L. A.; et al., (82m:35045)**
(Monahov, V. N.) *See* **Aksent'ev, L. A.; et al., (82m:35045)**
(Olsen, D. R.) *See* **Poston, Tim; et al., (82i:58019)**
Poston, Tim (*with* Stewart, Ian) ★Теория катастроф и ее приложения. (Russian) [Catastrophe theory and its applications] **(82i:58019)**
Reid, William Hill *See* **Drazin, P. G., (82h:76021)**
(Rockwood, A.) *See* **Poston, Tim; et al., (82i:58019)**
Salimov, R. B. *See* **Aksent'ev, L. A.; et al., (82m:35045)**
Sánchez-Palencia, Enrique ★Nonhomogeneous media and vibration theory. **(82j:35010)**
Sattinger, D. H. ★Les symétries des équations et leurs applications dans la mécanique et la physique. (French) [The symmetries of equations and their applications in mechanics and physics] **(82i:58001)**
Stewart, Ian *See* **Poston, Tim, (82i:58019)**
Stewartson, Keith Marginally stable inviscid flows with critical layers. **(82j:76045)**
Voskresenskiĭ, G. P. (*with* Čuškin, P. I.) Numerical methods for computation of supersonic flow around bodies at an angle of attack. (Russian. English summary) **(82k:76043)**
Wiegel, Frederik W. ★Fluid flow through porous macromolecular systems. **(82m:76064)**
Solitons ★Solitons. **(82m:35001)**

76–03 Historical (must also be assigned at least one classification number from Section 01)

Batchelor, G. K. Preoccupations of a journal editor. (*See* **82g:76002**)
Eliassen, Arnt Vilhelm Bjerknes and his students. (*See* **82m:76001**)
Shercliff, J. A. Reflections of a new editor. (*See* **82g:76002**)

secondary classifications:

(Alihan'jan, A. I.) *See* **Bessarab, M. Ja., (82c:01045)**
(Bašmakova, I. G.) *See* **History and methodology of the natural sciences, (82c:01004)**
Bessarab, M. Ja. ★Лэндау. (Russian) [Landau] **(82c:01045)**
(Blanc, Charles) *See* **Euler, Leonhard, (82c:01069)**
Euler, Leonhard ★Commentationes mechanicae et astronomicae ad scientiam navalem pertinentes. Volumen prius. (Latin) [Mechanical and astronomical works pertaining to naval science. Vol. I] **(82e:01120)**
★Commentationes mechanicae ad theoriam machinarum pertinentes. (Latin) [Commentaries on mechanics pertaining to the theory of machines] **(82c:01069)**
(Habicht, Walter) *See* **Euler, Leonhard, (82e:01120)**
(de Haller, Pierre) *See* **Euler, Leonhard, (82c:01069)**
Kutateladze, S. S. The development of the basic ideas of the theory of turbulence. (Russian) **(82f:01065)**
(Landau, L. D.) *See* **Bessarab, M. Ja., (82c:01045)**
(Marcus, Solomon) *See* **Moisil, Grigore Costantin, (82g:01089)**

Miles, John W. The Korteweg-de Vries equations: a historical essay. (*See* **82g:76002**)
Moisil, Grigore Constantin ★Opera matematică. Vol. II. (Romanian) [Mathematical works. Vol. II] **(82g:01089)**
(Rybnikov, K. A.) *See* **History and methodology of the natural sciences, (82c:01004)**
Schubert, Hans Lichtensteins Verhältnis zu den Grundbegriffen der Mechanik. **(82h:01065)**
(Tjulina, I. A.) *See* **History and methodology of the natural sciences, (82c:01004)**
Uhlenbeck, George E. Some notes on the relation between fluid mechanics and statistical physics. **(82i:82004)**
Biography:
Landau, L. D. *See* **Bessarab, M. Ja., (82c:01045)**
History and methodology of the natural sciences ★История и методология естественных наук. Вып XXV. (Russian) [History and methodology of the natural sciences. No. XXV] **(82c:01004)**
Natural sciences ★История и методология естественных наук. Вып XXV. (Russian) [History and methodology of the natural sciences. No. XXV] **(82c:01004)**

76–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Arminjon, Paul (*with* Beauchamp, Claude) Numerical solution of Burgers' equations in two space dimensions. **(82h:65109)**
Beauchamp, Claude *See* **Arminjon, Paul, (82h:65109)**
Huang, Lan Chieh Pseudo-unsteady difference schemes for discontinuous solutions of steady-state, one-dimensional fluid dynamics problems. **(82h:76031)**
Khosla, P. K. *See* **Rubin, S. G., (82h:76019b)**
Korolev, G. L. Numerical solution of an asymptotic problem of separation of a laminar boundary layer from a smooth surface. (Russian) **(82k:76024)**
LaVita, James Error growth in using the random choice method for the inviscid Burgers equation. **(82i:65057)**
Orszag, Steven A. *See* **Patera, Anthony T., (82i:76037)** *and* **(82m:76021)**
Patera, Anthony T. (*with* Orszag, Steven A.) Transition and turbulence in planar channel flows. **(82i:76037)**
(*with* Orszag, Steven A.) Finite-amplitude stability of axisymmetric pipe flow. **(82m:76021)**
Rubin, S. G. (*with* Khosla, P. K.) Navier-Stokes calculations with a coupled strongly implicit method. II. Spline deferred-corrector solutions. **(82h:76019b)**
Zabusky, Norman J. Computational synergetics and mathematical innovation. **(82m:00029)**

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DiPrima, R. C. Transition in flow between rotating concentric cylinders. (*See* **82k:76002**)
Gaster, M. On transition to turbulence in boundary layers. (*See* **82k:76002**)
Iida, S. *See* **Nishioka, M.; et al., (*See* 82k:76002)**
Laufer, J. Instability and turbulence in jets. (*See* **82k:76002**)
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76–06 Proceedings, conferences, etc.

(Batchelor, G. K.) *See* **Special issue: Editorial reflections on the development of fluid mechanics, 82g:76002**
(Čekalin, A. N.) *See* **Computational methods and computer software, 82h:76001**
(Eliseev, S. V.) *See* **Asymptotic methods in system dynamics, 82h:76001**
(Ermolin, E. V.) *See* **Computational methods and computer software, 82h:76001**
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Asymptotic methods in system dynamics ★Асимптотические методы в динамике систем. (Russian) [Asymptotic methods in system dynamics] **82h:76001**
Computational methods and computer software ★Вычислительные методы и математическое обеспечение ЭВМ. Вып. 2. (Russian) [Computational methods and computer software. No. 2] **82h:76001**
Computer software ★Вычислительные методы и математическое обеспечение ЭВМ. Вып. 2. (Russian) [Computational methods and computer software. No. 2] **82h:76001**
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Continuum dynamics ★Избранные вопросы динамики сплошных сред. (Russian) [Selected questions in continuum dynamics] **82e:76003**
Dynamic processes in gases and solid bodies ★Динамические процессы в газах и твердых телах. (Russian) [Dynamic processes in gases and solid bodies] **82g:76001**
Flow of viscous and inviscid gas. Two-phase fluids ★Течение вязкого и невязкого газа. Двухфазные жидкости. (Russian) [The flow of viscous and inviscid gas. Two-phase fluids] **82g:76024a**
Fluid dynamics ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **82h:76002**
Fluid mechanics ★Recent developments in theoretical and experimental fluid mechanics. **82c:76004**
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★25th anniversary issue: editorial reflections on the development of fluid mechanics. **82g:76002**
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Nonstationary problems in fluid mechanics ★Nonstationary problems in fluid mechanics. (Japanese) **82d:76004**
Numerical methods ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **82h:76002**
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Selected questions in continuum dynamics ★Избранные вопросы динамики сплошных сред. (Russian) [Selected questions in continuum dynamics] **82e:76003**
Special issue:
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Symposium:
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(Briskman, V. A.) *See* **Convective flows and hydrodynamic stability, (82d:76041)**
(Ganapol, B. D.) *See* **New frontiers in transport theory, (82k:82001)**
(Gani, J.) *See* **Essays in statistical science, (82i:62004)**
(Hannan, E. J.) *See* **Essays in statistical science, (82i:62004)**
(Hoppensteadt, Frank C.) *See* **Mathematical aspects of physiology, (82f:92003)**
(Jimenez, Javier) *See* **Role of coherent structures in modelling turbulence and mixing, (82c:76062)**
(Moran, P. A. P.) *See* **Essays in statistical science, (82i:62004)**
(Rimrott, F. P. J.) *See* **Theoretical and applied mechanics, (82d:00008)**
(Šapiro, V. D.) *See* **Nonlinear and turbulent processes in physics, (82c:82002)**
(Ševčenko, V. I.) *See* **Nonlinear and turbulent processes in physics, (82c:82002)**
(Tabarrok, B.) *See* **Theoretical and applied mechanics, (82d:00008)**
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(Varadan, Vijay K.) *See* **Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach, (82h:78002)**
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Role of coherent structures in modelling turbulence and mixing ★The role of coherent structures in modelling turbulence and mixing. **(82c:76062)**
Salt Lake City, Utah ★Mathematical aspects of physiology. **(82f:92003)**
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Acoustic, Electromagnetic and Elastic Wave Scattering—Focus on the *T*-Matrix Approach ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**
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Theoretical and applied mechanics ★Theoretical and applied mechanics. **(82d:00008)**
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Tokyo ★Theoretical and applied mechanics. Vol. 29. **(82e:73003)**
Toronto, Ont. ★Theoretical and applied mechanics. **(82d:00008)**
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76Axx Foundations, constitutive equations, rheology [See also 35L65.]

76A02 Foundations

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Goodrich, F. C. The theory of capillary excess viscosities. **82e:76004**
Lhuillier, D. (*with* Ouibrahim, A.) A thermodynamic model for solutions of deformable molecules. (French summary) **82b:76002**
Mazur, P. *See* **van Saarloos, W.; et al., 82e:76005**
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van Saarloos, W. (*with* Bedeaux, D.; Mazur, P.) Hydrodynamics for an ideal fluid: Hamiltonian formalism and Liouville equation. **82e:76005**
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Fuentes Martinez, G. J. *See* **Garcia-Colin, Leopoldo S.; et al., (82j:82032)**
Garcia-Colin, Leopoldo S. (*with* Robles-Dominguez, J. A.; Fuentes Martinez, G. J.) Beyond the Navier-Stokes regime in hydrodynamics. **(82j:82032)**
Koršija, T. K. (*with* Ljubimov, B. Ja.; Favorskiĭ, A. P.) Hamilton's principle for fluid in Euler variables. (Russian) **(82i:76023)**
Ljubimov, B. Ja. *See* **Koršija, T. K.; et al., (82i:76023)**
Pfeifroth, L. Newtonsche Flüssigkeiten als elastische Materialien mit inneren Variablen. **(82j:73004)**
Robles-Dominguez, J. A. *See* **Garcia-Colin, Leopoldo S.; et al., (82j:82032)**
Šugrin, S. M. Galilean systems of differential equations. (Russian) **(82h:35064)**

76A05 Non-Newtonian fluids

Anwar, M. (*with* Guram, G. S.) Numerical solution of a micropolar flow between a rotating and a stationary disc. **82h:76004**
Benderskaja, S. L. (*with* Husid, B. M.; Sul'man, Z. P.) Nonisothermal flow of non-Newtonian fluids in a channel. **82a:76003**
Georgiev, Georgi Iv. (*with* Ignat, Margareta) The intrinsic study of the dynamics of micropolar fluids. (Italian) **82c:76005**
Grioli, Antonio Claudio On the propagation of acceleration waves in a viscous micropolar fluid. (Italian. English summary) **82i:76001**
Guram, G. S. (*with* Smith, A. C.) Stagnation flows of micropolar fluids with strong and weak interactions. **82h:76005**
See also **Anwar, M., 82h:76004**
Husid, B. M. *See* **Benderskaja, S. L.; et al., 82a:76003**
Ignat, Margareta *See* **Georgiev, Georgi Iv., 82c:76005**
Kuzin, V. G. Motion of a nonlinear viscous liquid in a cylindrical channel under conditions of slip. **82h:76006**
Ladevèze, Jean Méthode du taux de déformation isochorique artificiel pour la résolution du problème de Stokes stationnaire pour certains fluides simples proprement dits incompressibles. (English summary) **82g:76003**
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Rajagopal, Kumbakonam R. On the stability of third-grade fluids. (Polish and Russian summaries) **82j:76001**
Ramkissoon, H. A paradox in microcontinuum fluid mechanics. **82c:76006**
(*with* Majumdar, S. R.) Potentials and Green's functions in micropolar fluid theory. (German and Russian summaries) **82a:76004**
Rao, G. Teeka (*with* Moizuddin, Mohammed) Steady flow of micropolar incompressible fluid between two parallel porous plates. **82c:76007**
Regirer, S. A. (*with* Šadrina, N. H.) On models of thixotropic fluids. **82f:76002**
Šadrina, N. H. *See* **Regirer, S. A., 82f:76002**
Sattarov, R. M. (*with* Mamedov, R. M.) The equation of motion of elastoplastic media in pipes of viscoelastic material. (Russian. Azerbaijani and English summaries) **82e:76006**
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Walski, Thomas M. Prediction of velocity profile in fluid in which yield stress varies with depth. **82c:76009**

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Pavlov, K. B. (*with* Romanov, A. S.) On the change in the region of localization of perturbations in nonlinear transport processes. **(82m:35078)**
Rajagopal, Kumbakonam R. Thermodynamics and stability of non-Newtonian fluids. **(82a:76007)**
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76A10 Viscoelastic fluids

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Bhatnagar, R. K. Flow between coaxial rotating disks: with and without externally applied magnetic field. **82a:76006**
Fosdick, R. L. (*with* Straughan, Brian) Catastrophic instabilities and related results in a fluid of third grade. (German summary) **82f:76003**
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Joseph, Daniel D. Instability of the rest state of fluids of arbitrary grade greater than one. **82g:76004**
Kim, Shinhaeng Flow of a viscoelastic fluid in an inlet region (numerical solutions and discussion). **82d:76005**
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Oskolkov, A. P. On the theory of Maxwell fluids. (Russian) **82h:76004**
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Rajagopal, Kumbakonam R. Thermodynamics and stability of non-Newtonian fluids. **82a:76007**
Siddappa, B. (*with* Hiremath, Prakash S.) Rivlin-Ericksen fluid flow past a stretching plate with suction. **82k:76003**
Straughan, Brian *See* **Fosdick, R. L., 82f:76003**
Strauss, Karl Die Stabilität der Strömung einer einfachen viskoelastischen Flüssigkeit in einem konvergenten Kanal gegen stationäre und periodische Störungen. (*See* **82c:76004**)
Zuzovsky, M. (*with* Priel, Z.; Mason, S. G.) Effects of rotary Brownian motion in rheological transients of suspensions of spheroids. **82f:76004**

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Paglietti, A. Can the theory of linear viscoelasticity be derived from the current thermodynamic theory of simple materials with fading memory? An objection. **(82g:73006)**
Sava, V. A. On the existence of solutions of the micropolar fluid equations. **(82c:76008)**

76A60 Computational methods

Baker, A. J. (*with* Soliman, M. O.) On the accuracy and efficiency of a finite element tensor product algorithm for fluid dynamics applications. **82j:76002**
Bathe, Klaus-Jürgen *See* **Engelman, M. S.; et al., 82f:76005**

Bezdetnyĭ, B. P. *See* **Gluščenko, A. A., 82g:76006**
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Cliffe, K. A. On conservative finite element formulations of the inviscid Boussinesq equations. **82g:76005**
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Couët, Benoit (*with* Leonard, A.) Exact extension to the infinite domain for the vortex-in-cell method. **82k:76004**
Demčenko, V. F. *See* **Ljaško, Ī. Ī.; et al., 82k:76007**
Engelman, M. S. (*with* Strang, Gilbert; Bathe, Klaus-Jürgen) The application of quasi-Newton methods in fluid mechanics. **82f:76005**
Förster, K. An accurate algorithm for Dirichlet boundary conditions in hyperbolic flows. (Polish and Russian summaries) **82i:76002**
Gerasimov, B. P. (*with* Semušin, S. A.) Calculation on a stationary Euler grid of the flow of bodies of changing form. (Russian) **82k:76005**
Gluščenko, A. A. (*with* Bezdetnyĭ, B. P.) Solution of boundary value problems of continuum mechanics by the method of *P*-transformations. (Russian. Bulgarian and English summaries) **82g:76006**
Göller, B. *See* **Krieg, R.; et al., 82h:76005b**
Gottlieb, David (*with* Lustman, Liviu; Orszag, Steven A.) Spectral calculations of one-dimensional inviscid compressible flows. **82m:76002**
Gresho, Philip M. (*with* Lee, Robert L.) Don't suppress the wiggles—they're telling you something! **82j:76003**
See also **Leone, John M., Jr., 82g:76007**
Griffiths, D. F. An approximately divergence-free 9-node velocity element (with variations) for incompressible flows. **82i:76003**
Hailfinger, G. *See* **Krieg, R., 82h:76005a** *and* **82h:76005b**
Hald, Ole H. Convergence of Fourier methods for Navier-Stokes equations. **82k:76006**
Hayes, L. (*with* Pinder, George F.; Celia, M.) Alternating-direction collocation for rectangular regions. **82m:76003**
Jackson, C. P. (*with* Cliffe, K. A.) Mixed interpolation in primitive variable finite element formulations for incompressible flow. **82m:76004**
Jones, Everett An asymptotic outer solution applied to the Keller box method. **82j:76004**
Krieg, R. (*with* Hailfinger, G.) Transient, three-dimensional potential flow problems and dynamic response of the surrounding structures. I. Description of the fluid dynamics by a singularity method (computer code SING). **82h:76005a**
(*with* Göller, B.; Hailfinger, G.) Transient, three-dimensional potential flow problems and dynamic response of the surrounding structures. II. Simultaneous coupling between fluid and structural dynamics (computer code SING-S). **82h:76005b**
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Leonard, A. *See* **Couët, Benoit, 82k:76004**
Leone, John M., Jr. (*with* Gresho, Philip M.) Finite element simulations of steady, two-dimensional, viscous incompressible flow over a step. **82g:76007**
Ljaško, Ī. Ī. (*with* Demčenko, V. F.; Vakulenko, S. A.) A variant of the method of splitting the equations of viscous incompressible fluid dynamics on Lagrangian-Euler grids. (Russian. English summary) **82k:76007**
Lustman, Liviu *See* **Gottlieb, David; et al., 82m:76002**
Orszag, Steven A. *See* **Gottlieb, David; et al., 82m:76002**
Overman, Edward A., II (*with* Zabusky, Norman J.) Translation, interaction and scattering of Euler equation *V*-states via contour dynamics. (*See* **82k:00010**)
Pinder, George F. *See* **Hayes, L.; et al., 82m:76003**
Šaškin, A. P. Construction of a monotone scheme of the second order of approximation. (Russian) **82j:76005**
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Soliman, M. O. *See* **Baker, A. J., 82j:76002**
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Zabusky, Norman J. *See* **Overman, Edward A., II,** (*See* **82k:00010**)

secondary classifications:

Abarbanel, Saul (*with* Gottlieb, David) Optimal time splitting for two- and three-dimensional Navier-Stokes equations with mixed derivatives. **(82f:65097)**
Abrašin, V. N. Difference schemes of gas dynamics. (Russian) **(82j:76062)**
Aksy, H. U. *See* **Ecer, A., (82j:76056)**
Amara, Mohamed (*with* Destuynder, Phillippe) A numerical method for the biharmonic problem. **(82k:73051)**
Arnold, Douglas N. (*with* Winther, Ragnar) A superconvergent finite element method for the Korteweg-de Vries equation. **(82m:65087)**
Baker, A. J. *See* **Soliman, M. O., (82m:76039)**
Baker, Timothy J. Potential flow calculation by the approximate factorisation method. **(82j:76055)**
Baum, H. R. (*with* Ciment, Melvyn; Davis, R. W.; Moore, E. F.) Numerical solutions for a moving shear layer in a swirling axisymmetric flow. **(82k:76022)**
Beam, Richard M. *See* **Warming, R. F., (82m:65083)**
Borisova, V. I. On a numerical solution of a nonlinear problem of the hydraulic theory of filtration. (Russian. Tajiki summary) **(82i:65065)**
Brailovskoĭja, I. Ju. Finite-difference schemes for the Navier-Stokes system. **(82m:76018)**
Brochard, Luigi Le décentrement dans les m.e.f discontinus. **(82i:76051)**
Calia, V. *See* **Marconi, F.; et al., (82m:76065)**
Casulli, Vincenzo Numerical simulation of free-surface thermally influenced flows for nonhomogeneous fluids. **(82j:76074)**
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Craig, A. W. (*with* Wood, W. L.) Cost-efficiency study of various methods for solving the seepage through dam problem using variational inequalities. **(82i:76085)**
Cushman, John H. Continuous families of Lax-Wendroff schemes. **(82j:76018)**
Cuvelier, C. On the numerical solution of a capillary free boundary problem governed by the Navier-Stokes equations. **(82j:76034)**
Daĭkovskiĭ, A. G. (*with* Poležaev, V. I.; Fedoseev, A. I.) Application of the finite element method in the mechanics of a viscous fluid. (Russian) **(82j:76028)**
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Diaz-Munio, Rafael F. (*with* Wellford, L. Carter, Jr.) A finite-element singular-perturbation technique for convection-diffusion problems. I. The one-dimensional case. **(82j:76075a)**
(*with* Wellford, L. Carter, Jr.) A finite-element singular-perturbation technique for convection-diffusion problems. II. Two-dimensional problems. **(82j:76075b)**
Dixon, L. C. W. (*with* Morgan, D. J.; Harrison, David) On singular cases arising from Galerkin's method. **(82k:65061)**
Doolan, E. P. (*with* Miller, J. J. H.; Schilders, W. H. A.) ★Uniform numerical methods for problems with initial and boundary layers. **(82h:65053)**
Ecer, A. (*with* Akay, H. U.) Investigation of transonic flow in a cascade using the finite element method. **(82j:76056)**
Elghobashi, S. E. *See* **Megahed, I. E. A., (82h:80010)**
Favorskiĭ, A. P. *See* **Goloviznin, V. M.; et al., (82i:76064)** *and* **Gasilov, V. A.; et al., (82j:76091)**
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Geradin, M. (*with* Idelsohn, S.; Hogge, M. A.) Computational strategies for the solution of large nonlinear problems via quasi-Newton methods. **(82k:73054)**
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Glimm, James (*with* Marchesin, Dan; McBryan, Oliver A.) Statistical fluid dynamics: unstable fingers. **(82g:76038)**
(*with* Isaacson, Eli; Marchesin, Dan; McBryan, Oliver A.) Front tracking for hyperbolic systems. **(82i:76097)**
Goloviznin, V. M. (*with* Samarskiĭ, A. A.; Favorskiĭ, A. P.) A variational approach to the construction of discrete models in multidimensional hydrodynamics. (Russian) **(82i:76064)**
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Guščin, V. A. The splitting method for problems of the dynamics of an inhomogeneous viscous incompressible fluid. (Russian) **(82k:76027)**
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Huffenus, Jp. (*with* Khaletzky, D.) The Lagrangian approach of advective term treatment and its application to the solution of Navier-Stokes equations. **(82k:76023)**
Hunt, Roland (*with* Wilks, Graham) Continuous transformation computation of boundary layer equations between similarity regimes. **(82i:76030)**
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Jami, A. (*with* Polyzakis, M.) A finite element solution of diffraction problems in unbounded domains. **(82m:76054)**
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Levitan, Ju. L. (*with* Moiseenko, B. D.; Prīlmak, V. G.; Rožděstvenskiĭ, B. L.; Sidorova, V. K.) Methods of numerical modeling of turbulent flow of a fluid in a channel. (Russian) **(82k:76026)**
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Li, De Yuan On the energy conservation properties of finite difference schemes in nonconservative form. (Chinese. English summary) **(82k:65049)**
Lifanov, I. K. On the method of discrete vortices. **(82i:76019)**
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Marchesin, Dan *See* **Glimm, James; et al., (82g:76038)** *and* **(82i:76097)**
Marconi, F. (*with* Rudman, S.; Calia, V.) Numerical study of one-dimensional unsteady particle-laden flows with shocks. **(82m:76065)**
McBryan, Oliver A. *See* **Glimm, James; et al., (82g:76038)** *and* **(82i:76097)**
Megahed, I. E. A. (*with* Elghobashi, S. E.) On the numerical solution of indeterminate steady elliptic flows. **(82h:80010)**
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Monkewitz, Peter A. (*with* Monkewitz, Martin A.) The asymptotic solution of the Orr-Sommerfeld equation at large distance from a shear layer. **(82i:76042)**
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Myznikova, B. I. (*with* Tarunin, E. L.) Boundary conditions for the velocity vortex in problems of the dynamics of a viscous fluid. (Russian) **(82i:76034)**
Nédélec, J.-Claude Incompressible mixed finite elements for the Stokes equation in $\mathbf{R}^3$. **(82k:65065)**
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Neuberger, John W. A type-independent iterative method for systems of nonlinear partial differential equations: application to the problem of transonic flow. **(82d:76059)**
Neuman, Shlomo P. An Eulerian-Lagrangian numerical scheme for the dispersion-convection equation using conjugate space-time grids. **(82m:86001)**
Ng, B. S. (*with* Reid, William Hill) On the numerical solution of the Orr-Sommerfeld problem: asymptotic initial conditions for shooting methods. **(82h:76022)**
Orszag, Steven A. *See* **Patera, Anthony T., (82m:76021)**
Patera, Anthony T. (*with* Orszag, Steven A.) Finite-amplitude stability of axisymmetric pipe flow. **(82m:76021)**
Petkov, R. Numerical solution of nonstationary processes in pressure systems by means of fast oscillation integral equations. (Bulgarian. Russian and English summaries) **(82j:76058)**
Picard, Rainer *See* **Neittaanmäki, Pekka, (82g:76031)**
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Popov, Ju. P. *See* **Popov, S. B., (82m:76046)**
Popov, S. B. (*with* Popov, Ju. P.) Peculiarities of the solution of equations of gas dynamics by finite-difference methods. (Russian. English summary) **(82m:76046)**
Preiser, Stanley *See* **Lee, Ding, (82g:76030)**
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Quartapelle, L. (*with* Valz-Gris, F.) Projection conditions on the vorticity in viscous incompressible flows. **(82g:76015)**
Vorticity conditioning in the computation of two-dimensional viscous flows. **(82i:76035)**
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(*with* Khosla, P. K.) Navier-Stokes calculations with a coupled strongly implicit method. I. Finite-difference solutions. **(82h:76019a)**
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Rusanov, V. V. On the computation of discontinuous multidimensional gas flows. **(82j:76067)**
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See also **Goloviznin, V. M.; et al., (82i:76064)**
Schilders, W. H. A. *See* **Doolan, E. P.; et al., (82h:65053)**
Shen, Jie Wu (*with* Zhou, Yu Mei; Qing, Cheng Rui) A new method for solving the free-boundary magnetic surface equation without conducting shells. (Chinese. English summary) **(82h:76044)**
Sidorova, V. K. *See* **Levitan, Ju. L.; et al., (82h:76026)**
Soliman, M. O. (*with* Baker, A. J.) Accuracy and convergence of a finite element algorithm for turbulent boundary layer flow. **(82m:76039)**
Strampp, W. Invariant group solutions of hydrodynamical equations. **(82i:35011)**
Strikwerda, John (*with* Geer, James F.) A numerical method for computing the shape of a vertical slender jet. **(82i:76032)**
Tarunin, E. L. *See* **Myznikova, B. I., (82i:76034)**
Valz-Gris, F. *See* **Quartapelle, L., (82g:76015)**
Warming, R. F. (*with* Beam, Richard M.) Recent advances in the development of implicit schemes for the equations of fluid dynamics. **(82m:65083)**
Wellford, L. Carter, Jr. *See* **Diaz-Munio, Rafael F., (82j:76075a)** *and* **(82j:76075b)**
White, I. R. (*with* Lewis, R. W.; Wood, W. L.) The numerical simulation of multiphase flow through a porous medium and its application to reservoir engineering. **(82i:76088)**
Wilks, Graham *See* **Hunt, Roland, (82i:76030)**
Winther, Ragnar *See* **Arnold, Douglas N., (82m:65087)**
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Yeh, Gour Tsyh Numerical solutions of Navier-Stokes equations with an integrated compartment method (ICM). **(82i:76033)**
Zannetti, Luca (*with* Colasurdo, Guido) Unsteady compressible flow: a computational method consistent with the physical phenomena. **(82f:76026)**
Zhou, Yu Mei *See* **Shen, Jie Wu; et al., (82h:76044)**

Conference:
Numerical Methods in Fluid Dynamics ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**
Fluid dynamics ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**
Moffett Field, Calif. ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**
Numerical methods ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**
Stanford, Calif. ★Seventh International Conference on Numerical Methods in Fluid Dynamics. **(82h:76002)**

76A99 None of the above, but in this section

Armstrong, Robert C. (*with* Ishikawa, Shingo) A rheological equation of state for dilute solutions of nearly-Hookean dumbbells. **82c:76010**
Brenner, Howard The translational and rotational motions of an n-dimensional hypersphere through a viscous fluid at small Reynolds numbers. **82k:76008**
Chauré, A. Relaxation d'un cristal liquide nématique avec conditions d'ancrage faible aux parois. (English summary) **82j:76006**
Feteciu, C. Torsional flows of heat conducting simple fluids. **82h:76006**
Franchi, Franca Wave propagation in a non-Stokesian thermoviscous fluid satisfying the objectivity principle. (Italian. English summary) **82m:76005**
Ishikawa, Shingo *See* **Armstrong, Robert C., 82c:76010**
Keyes, T. (*with* Morita, Terumitsu; Mercer, John) Further development of the approach of Peralta and Zwanzig. I. The drag on a sphere at high bath densities. **82e:76007**
Leslie, F. M. On the thermodynamics of polar fluids. **82a:76008**
Mascarenhas, Maria Luisa Fonctionnelles faiblement continues et semi-continues inférieurement issues de lois de comportement non linéaires pour des fluides incompressibles. (English summary) **82k:76009**
Mercer, John *See* **Keyes, T.; et al., 82e:76007**
Morita, Terumitsu *See* **Keyes, T.; et al., 82e:76007**
Morro, Angelo Acceleration waves in thermoviscous fluids. **82b:76007**
Šmakov, Ju. I. (*with* Šmakova, L. M.) Rheological behavior of dilute suspensions of rigid spherical particles with a power dispersive medium. (Russian) **82i:76004**
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Straughan, Brian A novel type of wave behaviour in a compressible inviscid dipolar fluid and stability characteristics of generalized fluids. **82j:76007**

secondary classifications:

Binz, E. Two natural metrics and their covariant derivatives on a manifold of embeddings. **(82h:58011)**
Carter, B. Rheometric structure theory, convective differentiation and continuum electrodynamics. **(82f:83055)**
Darrozes, Jean-Sylvestre *See* **Michelet, Gilles, (82g:73002)**
Michelet, Gilles (*with* Darrozes, Jean-Sylvestre) Flux d'entropie d'un fluide micromorphique. (English summary) **(82g:73002)**
Rivkind, V. Ja. (*with* Sigovcev, G. S.) On the method of successive approximations for a problem on the motion of a drop with account taken of the thermocapillary effect. (Russian) **(82k:76030)**
Sigovcev, G. S. *See* **Rivkind, V. Ja., (82k:76030)**
Sławomirski, Mariusz R. The constitutive equation and unsteady flow equation of the first-order integral-type incompressible isotropic liquid. (Russian summary) **(82m:73004)**

76Bxx Incompressible inviscid fluids, potential theory

secondary classifications:

Ryžov, O. S. Asymptotic methods in fluid dynamics. (Russian) **(82e:76002)**

76B05 Airfoil theory

Algazin, V. A. Calculation of nonlinear aerodynamic characteristics of an airfoil of finite span. (Russian) **82d:76006**
Capodanno, Pierre Mouvement d'un profil en présence d'une paroi rectiligne perméable. I. Mouvement d'un profil quelconque en présence d'une paroi rectiligne perméable. (English and Russian summaries) **82j:76009a**
Mouvement d'un profil en présence d'une paroi rectiligne perméable. II. La solution exacte du problème de la translation uniforme d'un profil rectiligne parallèlement à une paroi rectiligne perméable. (English and Russian summaries) **82j:76009b**
Sur le problème de l'intégration des équations du mouvement d'un profil au sein d'un fluide parfait incompressible en mouvement irrotationnel. **82j:76008**
Clark, R. W. (*with* James, R. M.) New approach to the solution of large, full matrix equations. **82h:76008**
Djaoua, Mohamed A method of calculation of lifting flows around 2-dimensional corner-shaped bodies. **82c:76011**
Filipkowski, S. (*with* Nowak, M.) Influence of hinge line gap on aerodynamic forces acting on a harmonically oscillating thin profile in an incompressible flow. I, II. (Polish and Russian summaries) **82e:76008**
Howe, M. S. Aerodynamic sound generated by a slotted trailing edge. **82e:76009**
Ivanteeva, L. G. (*with* Konovalov, S. I.; Pavlovec, G. A.) Calculation of aerodynamic characteristics of a profile near a baffle for specific values of its geometric parameters. (Russian) **82h:76009**
James, R. M. *See* **Clark, R. W., 82h:76008**
Konovalov, S. I. *See* **Ivanteeva, L. G.; et al., 82h:76009**
Laporte, Roland Sur la construction de profils aérodynamiques voisins d'un profil donné. (English summary) **82h:76007**
Martynenko, M. D. Motion of a wing of finite span, similar in design to a circular one. (Russian. English summary) **82e:76010**
Nowak, M. *See* **Filipkowski, S., 82e:76008**
Pavlovec, G. A. *See* **Ivanteeva, L. G.; et al., 82h:76009**
Poljahov, N. N. (*with* Šesternina, Z. N.) On the convergence of discrete vortices. (Russian. English summary) **82h:76010**
(*with* Šesternina, Z. N.) Stationary flow around a rectangular wing with variable circulation along the span. (Russian. English summary) **82i:76005**
Radvogin, Ju. B. Flow in the neighborhood of a sharp stagnation point. (Russian. English summary) **82i:76006**
Ramazanov, M. D. The problem of the flow around a thin wing with a sharp trailing edge of inviscid incompressible fluid. (Russian) **82a:76009**
Šesternina, Z. N. *See* **Poljahov, N. N., 82h:76010** *and* **82i:76005**

secondary classifications:

Fromme, J. A. (*with* Golberg, M. A.) Convergence and stability of a collocation method for the generalized airfoil equation. **(82h:65097)**
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Goldstein, M. E. The coupling between flow instabilities and incident disturbances at a leading edge. **(82d:76049)**
Sudakov, G. G. Asymptotic solution of the problem of detached flow around a triangular airfoil under a small angle of incidence. (Russian) **(82c:76045)**
Timofeev, I. Ja. Convergence of the "discrete vortex" method of solving linear problems of airfoil theory. (Russian) **(82c:76027)**

76B10 Jets and cavities, cavitation, free-streamline theory, water-entry problems, hydrofoil theory

Avagjan, S. G. (*with* Bagdoev, A. G.) Some problems in penetration of bodies into heavy fluid. (Russian. Armenian and English summaries) **82d:76007**
Bagdoev, A. G. *See* **Avagjan, S. G.,** **82d:76007**
Boucher, G. Problème plan de l'écoulement, autour d'un profil placé sous une ligne libre d'un fluide pesant limité par une paroi. (English summary) **82h:76008**
Cantwell, Brian J. Transition in the axisymmetric jet. **82g:76008**
Dežkunov, N. V. (*with* Kuvšinov, V. I.; Kuvšinov, G. I.; Prohorenko, P. P.) Aspherical collapse of a cavitation bubble between two solid walls. **82b:76011**
Efremov, I. I. (*with* Urjas'ev, S. P.) Application of methods of gradient type with smoothing to the problem of cavitation flow around thin profiles. (Russian. English summary) **82e:76011**
Greenspan, Donald *n*-body modeling of nonlinear, free surface liquid flow. **82d:76008**
Hall, Philip (*with* Seminara, G.) Nonlinear oscillations of nonspherical cavitation bubbles in acoustic fields. **82c:76012**
Hilbig, H. Existenzsatz für Potentialströmungen mit Totwassern um zwei geradlinige Hindernisse. (English and Russian summaries) **82h:76009**
Hunt, J. C. R. Some connections between fluid mechanics and the solving of industrial and environmental fluid-flow problems. (*See* **82g:76002**)
Keller, Joseph B. Some bubble and contact problems. **82a:76010**
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Kuvšinov, G. I. *See* **Dežkunov, N. V.; et al., 82b:76011**
Kuvšinov, V. I. *See* **Dežkunov, N. V.; et al., 82b:76011**
Miksis, Michael (*with* Vanden-Broeck, Jean-Marc; Keller, Joseph B.) Axisymmetric bubble or drop in a uniform flow. **82j:76010**
Peregrine, D. H. The fascination of fluid mechanics. (*See* **82g:76002**)
Prohorenko, P. P. *See* **Dežkunov, N. V.; et al., 82b:76011**
Seminara, G. *See* **Hall, Philip, 82c:76012**
Urjas'ev, S. P. *See* **Efremov, I. I., 82e:76011**
Vanden-Broeck, Jean-Marc (*with* Keller, Joseph B.) Deformation of a bubble or drop in a uniform flow. **82c:76013**
Deformation of a liquid surface by an impinging gas jet. **82j:76011**
See also **Miksis, Michael; et al., 82j:76010**
Vorob'ev, Ju. L. Hydrodynamic problem of the pitching of a catamaran on shallow water. **82h:76012**

secondary classifications:

Pyhteev, G. N. A case of convergence of the iteration method and its application in the theory of jets. (Russian) **(82c:47074)**

76B15 Water waves, gravity waves; dispersion and diffraction, nonlinear interaction

Akylas, T. R. (*with* Benney, D. J.) Direct resonance in nonlinear wave systems. **82c:76014**
Aoki, Hiroshi Higher order calculation of finite periodic standing gravity waves by means of the computer. **82d:76009**
Baddour, R. E. *See* **Hunt, J. N., 82a:76011** *and* **82d:76010**
Barnjak, M. Ja. Approximate methods of solution of fundamental boundary value problems of fluid dynamics in vertical cylindrical bands. (Russian) **82f:76006**
Benney, D. J. *See* **Akylas, T. R., 82c:76014** *and* **Liu, A. K., 82g:76010**
Brown, S. N. (*with* Stewartson, Keith) On the nonlinear reflexion of a gravity wave at a critical level. I. **82e:76012**
Case, K. M. The Benjamin-Ono equation: a remarkable dynamical system. **82j:76012**
Chakravarrty, I. C. *See* **Rahman, Matiur, 82m:76008**
Chen, Benito C. (*with* Saffman, Philip G.) Steady gravity-capillary waves on deep water. I. Weakly nonlinear waves. **82e:76013a**
(*with* Saffman, Philip G.) Steady gravity-capillary waves on deep water. II. Numerical results for finite amplitude. **82e:76013b**
Crawford, Donald R. (*with* Lake, Bruce M.; Saffman, Philip G.; Yuen, Henry C.) Effects of nonlinearity and spectral bandwidth on the dispersion relation and component phase speeds of surface gravity waves. (*See* **82d:00008**)
(*with* Lake, Bruce M.; Saffman, Philip G.; Yuen, Henry C.) Stability of weakly nonlinear deep-water waves in two and three dimensions. **82i:76007**
Das, K. P. On nonlinear evolution equations of a three-dimensional capillary-gravity wave packet at the interface of two superposed fluids. **82m:76006**
Debnath, Lokenath (*with* Rahman, Matiur) A theory of nonlinear wave loading on offshore structures. **82h:76010**
Dyment, Arthur Phénomènes exceptionnels de propagation d'ondes de pesanteur dans un canal. (English summary) **82h:76011**
Förste, Joachim Existenz- und Einzigkeitsprobleme für instationäre Strömungen in offenen Gerinnen. (English and Russian summaries) [Existence and uniqueness problems for nonstationary flow in open channels] **82k:76010**
Gabov, S. A. (*with* Svešnikov, A. G.; Šatov, A. K.) On the theory of steady waves on the surface of a spherical layer of a stratified liquid. (Russian) **82f:76007**
See also **Varlamov, V. V., 82c:76018**
Grimshaw, R. An exact finite-amplitude wave on a Helmholtz velocity profile in an infinite Boussinesq fluid. **82h:76012**
Evolution equations for long, nonlinear internal waves in stratified shear flows. **82j:76013**
Haines, C. R. A Wiener-Hopf approach to Kelvin wave generation by a semi-infinite barrier and a depth discontinuity. **82j:76014**
Helal, M. A. (*with* Molines, J. M.) Nonlinear internal waves in shallow water. A theoretical and experimental study. (Russian summary) **82k:76011**
Henrotay, Pierre Periodic solutions and recurrence for nonlinear Schrödinger equation: a Fourier-mode approach. (French summary) **82h:76013**
Hulme, A. The potential of a horizontal ring of wave sources in a fluid with a free surface. **82e:76014**
Hunt, J. N. (*with* Baddour, R. E.) Nonlinear standing waves bounded by cylinders. **82a:76011**
(*with* Baddour, R. E.) The diffraction of nonlinear progressive waves by a vertical cylinder. **82d:76010**
Johnson, R. S. Water waves and Korteweg-de Vries equations. **82d:76011**
Joseph, R. I. The role of the long-wave approximation in describing the propagation of weakly nonlinear waves under the influence of both dispersion and dissipation. **82h:76013**
Kac, A. V. (*with* Spevak, I. S.) Reconstruction of the sea-wave spectra from the measurements of moving sensors. **82f:76008**
Kano, Tadayoshi (*with* Nishida, Takaaki) Sur les ondes de surface de l'eau avec une justification mathématique des équations des ondes en eau peu profonde. **82d:76012**
Kapoulitsas, George M. Scattering of long waves in a rotating bifurcated channel. **82h:76014**
Knickerbocker, Collen (*with* Newell, Alan C.) Internal solitary waves near a turning point. **82g:76009**
Laedke, E. W. (*with* Spatschek, K. H.) Two-dimensional evolution of packets of short water waves in systems of finite depth. **82j:76015**
Lake, Bruce M. *See* **Crawford, Donald R.; et al., 82i:76007** *and* (*See* **82d:00008**)
Laval, Pierre Une classe de schémas explicites de désintégration pour les systèmes hyperboliques non linéaires conservatifs. (English summary) **82a:76012**
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Thyagaraja, A. Recurrence, dimensionality, and Lagrange stability of solutions of the nonlinear Schrödinger equation. **82k:76015**

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Ablowitz, Mark J. (*with* Airault, Hélène) Perturbations finies et forme particulière de certaines solutions de l'équation de Korteweg-de Vries. (English summary) **(82h:35134)**

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Arnold, Douglas N. (*with* Winther, Ragnar) A superconvergent finite element method for the Korteweg-de Vries equation. **(82m:65087)**

Berry, M. V. (*with* Chambers, R. G.; Large, M. D.; Upstill, C.; Walmsley, J. C.) Wavefront dislocations in the Aharonov-Bohm effect and its water wave analogue. (French summary) **(82h:81007)**

Bock, T. L. (*with* Kruskal, M. D.) A two-parameter Miura transformation of the Benjamin-Ono equation. **(82d:35083)**

Broer, L. J. F. Nonlinear wave equations as Hamiltonian systems. **(82g:35101)**

Browning, G. (*with* Kasahara, A.; Kreiss, Heinz-Otto) Initialization of the primitive equations by the bounded derivative method. **(82e:65125)**

Brun, Louis (*with* Mangin, Jean-Paul) Extension aux domaines bornés ou non d'une formule de Poincaré. (English summary) **(82e:26010)**

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Cole, Julian D. Limit process expansions and approximate equations. **(82a:76060)**

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Dafermos, Constantine M. Can dissipation prevent the breaking of waves? **(82a:35068)**

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Evans, D. V. Power from water waves. (*See* **82f:76001**)

Gibbon, John (*with* McGuinness, Mark J.) Amplitude equations at the critical points of unstable dispersive physical systems. **(82m:35127)**

Grimshaw, R. Slowly varying solitary waves in deep fluids. **(82g:76011)**

Grundland, M. *See* **Kalinowski, M. W., (82g:35107)**

Guljaev, V. I. Numerical study of nonlinear periodic waves in dispersive media. **(82m:73027)**

Guo, Ben Yu (*with* Sanz Serna, J. M.) Convergence of methods for the numerical solution of the Korteweg-de Vries equation. **(82e:65092)**

Hewgill, Denton E. (*with* Reeder, John; Shinbrot, Marvin) Some exact solutions of the nonlinear problem of water waves. **(82i:35169)**

Holyer, Judith Y. (*with* Huppert, Herbert E.) Gravity currents entering a two-layer fluid. **(82a:76086)**

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Infeld, E. Quantitive theory of the Fermi-Pasta-Ulam recurrence in the nonlinear Schrödinger equation. **(82i:70026)**

Jeffrey, Alan (*with* Mvungi, John) On the breaking of water waves in a channel of arbitrarily varying depth and width. (French summary) **(82k:35070)**

Kalinowski, M. W. (*with* Grundland, M.) An exact solution of the Korteweg-de Vries equation with dissipation. **(82g:35107)**

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Kopilevič, Ju. I. *See* **Zil'bergleit, A. S., (82h:47017)**

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Large, M. D. *See* **Berry, M. V.; et al., (82h:81007)**

Lebedev, D. R. (*with* Manin, Ju. I.) Conservation laws and Lax representation of Benney's long wave equations. **(82e:35069)**

Loginov, B. V. Periodic solutions of the problem of waves over a flat bottom. (Russian) **(82m:35008)**

Makarenko, N. I. On the theory of two-layered shallow water. (Russian) **(82m:76068)**

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Perkolab, L. V. A numerical solution of a periodic Korteweg-de Vries problem. (Russian) **(82e:35073)**

Pomeau, Y. (*with* Zaleski, S.) Wavelength selection in one-dimensional cellular structures. (French summary) **(82h:76017)**

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(*with* Rowlands, G.) Three-dimensional stability of Korteweg-de Vries waves and solitons. II. **(82j:35129b)**
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Levi, D. (*with* Pilloni, L.; Santini, P. M.) Bäcklund transformations for nonlinear evolution equations in 2+1 dimensions. **(82e:35070)**
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Wadati, Miki (*with* Sawada, Katuro) New representations of the soliton solution for the Korteweg-de Vries equation. **(82d:35100)**
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Pomeau, Y. (*with* Zaleski, S.) Wavelength selection in one-dimensional cellular structures. (French summary) **82h:76017**
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Ablowitz, Mark J. *See* **Kodama, Yuji; et al., (82c:35071)**
Kodama, Yuji (*with* Satsuma, Junkichi; Ablowitz, Mark J.) Nonlinear intermediate long-wave equation: analysis and method of solution. **(82c:35071)**
Satsuma, Junkichi *See* **Kodama, Yuji; et al., (82c:35071)**

76B40 Added mass computations

Birkhoff, Garrett (*with* Lynch, Robert E.) Added mass of cylinders. **82j:76024**
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Keller, Joseph B. *See* **Miksis, Michael; et al., (82j:76010)**
Miksis, Michael (*with* Vanden-Broeck, Jean-Marc; Keller, Joseph B.) Axisymmetric bubble or drop in a uniform flow. **(82j:76010)**
Vanden-Broeck, Jean-Marc *See* **Miksis, Michael; et al., (82j:76010)**

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Amenzade, R. Ju. (*with* Nasibov, V. G.) Waves in an inhomogeneous viscoelastic tube with a flowing liquid. (Russian. Azerbaijani and English summaries) **82c:76021**
Aržanyh, I. S. A class of three-dimensional vortex-free flows that are determined by analytic functions of a complex variable. (Russian) **82d:76021**
Baker, Gregory R. (*with* Israeli, Moshe) Numerical techniques for free surface motion with application to drop motion caused by variable surface tension. **82j:76025**
Birkhoff, Garrett (*with* Lynch, Robert E.) Added mass of cylinders. (*See* **82a:65005**)
Blennerhassett, P. J. On the generation of waves by wind. **82i:76017**
Bouix, Maurice Modèle général d'écoulement d'un fluide avec obstacle déformable. Application au cas de la symétrie axiale. (English summary) [A general model of fluid flow with obstacle of variable shape. Application to the case of axial symmetry] **82k:76016**
Capodanno, Pierre Les équations d'Appell et d'Euler-Lagrange pour le mouvement d'un solide se déplacant dans un fluide parfait incompressible en mouvement irrotationnel, au repos à l'infini et leur application à quelques problèmes d'hydrodynamique plane. **82a:76017**
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Acker, Andrew Concerning Daniljuk's existence theorem for free boundary value problems with the Bernoulli condition. **(82b:49028)**
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Bauer, M. G. Le problème de Neumann-Kelvin. I. Développement asymptotique de la partie oscillante de la solution élémentaire. **(82b:35022a)**
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Keller, Joseph B. *See* **Vanden-Broeck, Jean-Marc, (82a:73024)**
Knowles, James K. Universal states of finite anti-plane shear: Ericksen's problem in miniature. **(82f:73018)**
Krieg, R. (*with* Hailfinger, G.) Transient, three-dimensional potential flow problems and dynamic response of the surrounding structures. I. Description of the fluid dynamics by a singularity method (computer code SING). **(82h:76005a)**
(*with* Göller, B.; Hailfinger, G.) Transient, three-dimensional potential flow problems and dynamic response of the surrounding structures. II. Simultaneous coupling between fluid and structural dynamics (computer code SING-S). **(82h:76005b)**
LaVita, James Error growth in using the random choice method for the inviscid Burgers equation. **(82i:65057)**
Lukackiĭ, A. M. On the curvature of the group of measure-preserving diffeomorphisms of an n-dimensional torus. (Russian) **(82j:58032)**
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Minea, Gheorghe The linear first integrals of the Euler equations. **(82g:58020)**
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Nužin, M. T. *See* **Aksent'ev, L. A.; et al., (82d:30038)**
Perelomov, A. M. Some remarks on the integrability of the equations of motion of a rigid body in an ideal fluid. (Russian) **(82j:58066)**
Planchard, J. Fréquences propres d'un faisceau de tubes placés dans un liquide. (English summary) **(82a:73026)**
Salimov, R. B. *See* **Aksent'ev, L. A.; et al., (82d:30038)**
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Vanden-Broeck, Jean-Marc (*with* Keller, Joseph B.) Shape of a sail in a flow. **(82a:73024)**
Vilenc, I. L. On the connection between the uniqueness of the solution of a nonlocal boundary value problem in a layer for systems with variable coefficients and parametric systems. (Russian) **(82k:35057)**

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76C05 Vorticity flows

Adebiyi, A. On the existence of steady helical vortex tubes of small cross-section. **82m:76014**
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Bardos, Claude (*with* Bercovier, Michel; Pironneau, Olivier) Vortex method with finite element for the Euler equation. **82c:76026**
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Kida, Shigeo A vortex filament moving without change of form. **82m:76015**
Lifanov, I. K. On the method of discrete vortices. **82i:76019**
Ling, Guo Can (*with* Yin, Xie Yuan) The early stages of unsteady flow around a circular cylinder at high Reynolds number and under laminar conditions. (Chinese. English summary) **82i:76020**
Lugt, Hans J. The dilemma of defining a vortex. (German summary) (*See* **82c:76004**)
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Rautmann, Reimund Das Cauchyproblem der Helmholtzschen Wirbelgleichung mit einer Differenzennäherung. (*See* **82c:76004**)
Saffman, Philip G. Dynamics of vorticity. (*See* **82g:76002**)
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Schwartz, Leonard W. A semi-analytic approach to the self-induced motion of vortex sheets. **82k:76019**
Stuart, J. T. (*with* DiPrima, R. C.) On the mathematics of Taylor-vortex flows in cylinders of finite length. **82b:76021**
Sulem, Catherine (*with* Sulem, Pierre-Louis; Bardos, Claude; Frisch, Uriel) Sur l'instabilité de Kelvin-Helmholtz à trois dimensions. (English summary) **82b:76022**
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Timofeev, I. Ja. Convergence of the "discrete vortex" method of solving linear problems of airfoil theory. (Russian) **82c:76027**
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Yin, Xie Yuan *See* **Ling, Guo Can, 82i:76020**

secondary classifications:

Bardos, Claude (*with* Bercovier, Michel; Pironneau, Olivier) The vortex method with finite elements. **(82c:65066)**
Bercovier, Michel *See* **Bardos, Claude; et al., (82c:65066)**
Pironneau, Olivier *See* **Bardos, Claude; et al., (82c:65066)**
Saffman, Philip G. (*with* Szeto, R. K.-H.) Equilibrium shapes of a pair of equal uniform vortices. **(82a:76020)**
Simionescu, Claudia Lidia On a control problem in the theory of whirls. (Romanian summary) **(82d:49005)**
Szeto, R. K.-H. *See* **Saffman, Philip G., (82a:76020)**

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76C15 Atmospheric waves

Gibbon, John (*with* James, I. N.; Moroz, Irene M.) The sine-Gordon equation as a model for a rapidly rotating baroclinic fluid. **82h:76018**
Isaacson, Eugene (*with* Zwas, Gideon) Mountain winds revisited. **82d:76024**
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Moroz, Irene M. *See* **Gibbon, John; et al., 82h:76018**
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secondary classifications:

Blumen, William The geostrophic coordinate transformation. **(82k:86010)**
Chao, Ji Ping (*with* Huang, Rui Xin) The cnoidal waves of rotating barotropic atmosphere. **(82c:76019)**
Huang, Rui Xin *See* **Chao, Ji Ping, (82c:76019)**
Lindzen, Richard S. (*with* Rosenthal, Arthur J.) A WKB asymptotic analysis of baroclinic instability. **(82k:76035)**
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Imamura, Tsutomu *See* **Nagasawa, Kiyoshi; et al., (82a:76045)**
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Ripa, P. On the theory of nonlinear wave-wave interactions among geophysical waves. **(82d:76017)**
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Lynden-Bell, D. (*with* Katz, Joseph) Isocirculational flows and their Lagrangian and energy principles. **82k:76020**
Milicer-Grużewska, Halina Les propriétés d'un opérateur différentiel apparaissant en mécanique des fluides. **82g:76014**
Onufriev, A. T. Singularities of turbulent motion in the core of a vortex ring. (Russian) **82k:76021**

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Agemi, Rentaro The incompressible limit of compressible fluid motions in a bounded domain. **(82m:35101)**
Beirão da Veiga, Hugo On an Euler-type equation in hydrodynamics. **(82e:35063)**
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Cliffe, K. A. On conservative finite element formulations of the inviscid Boussinesq equations. **(82g:76005)**
Cooke, Charlie H. On artificial vorticity in numerical simulation of incompressible flow. **(82d:65078)**
Couët, Benoit (*with* Leonard, A.) Exact extension to the infinite domain for the vortex-in-cell method. **(82k:76004)**
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Fursikov, A. V. *See* **Višik, M. I., (82g:35095)**
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Brady, J. F. (*with* Acrivos, A.) Steady flow in a channel or tube with an accelerating surface velocity. An exact solution to the Navier-Stokes equations with reverse flow. **82m:76017**
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Daĭkovskiĭ, A. G. (*with* Poležaev, V. I.; Fedoseev, A. I.) Application of the finite element method in the mechanics of a viscous fluid. (Russian) **82j:76028**
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Murata, Susumu (*with* Miyake, Yutaka; Inaba, Takehiko; Ogawa, Hiroshi) Laminar flow in a helically coiled pipe. **82e:76022**
Niimi, Hideyuki (*with* Minamiyama, Motomu; Hanai, Sotaro) Steady axisymmetrical stagnation-point flow impinging obliquely on a wall. **82e:76023**
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Patera, Anthony T. (*with* Orszag, Steven A.) Finite-amplitude stability of axisymmetric pipe flow. **82m:76021**
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Prasad, S. N. (*with* Thakur, P. J.) Axially symmetrical universal motions of Navier-Stokes fluids. **82c:76034**
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Schippers, H. Multiple grid methods for oscillating disk flow. **82a:76025**
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Slavčev, S. G. On the fundamental solutions of the Stokes nonsteady equations. **82i:76026**
Sozou, C. (*with* Pickering, W. M.) The nonlinear flow field induced by a point force in the presence of a plane wall. **82i:76027**
Szeto, R. K.-H. *See* **Keller, Herbert B., 82h:76024**
Tabacova, S. S. On the oscillatory viscous flow past two spheres perpendicular to the line of centres. **82j:76029**
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Thakur, P. J. *See* **Prasad, S. N., 82c:76034** *and* **82f:76012**
Thompson, J. F. *See* **Mastin, C. W.; et al., 82c:76032**
Valz-Gris, F. *See* **Quartapelle, L., 82g:76015**

secondary classifications:

Abarbanel, Saul (*with* Gottlieb, David) Optimal time splitting for two- and three-dimensional Navier-Stokes equations with mixed derivatives. **(82f:65097)**
Babenko, K. I. Some remarks on bifurcation of solutions of the Navier-Stokes equations. (Russian) **(82k:35089)**
Baker, A. J. The finite element method in computational fluid mechanics. **(82c:76064)**
(*with* Soliman, M. O.) On the accuracy and efficiency of a finite element tensor product algorithm for fluid dynamics applications. **(82j:76002)**
Beale, J. Thomas (*with* Majda, Andrew) Rates of convergence for viscous splitting of the Navier-Stokes equations. **(82i:65056)**

Bemelmans, J. $C^{0+\alpha}$-semigroups for flows past obstacles and for flows with capillary surfaces. **(82c:35064)**

Bona, Jerry L. (*with* Pritchard, W. G.; Scott, L. R.) A posteriori error estimates for exact and approximate solutions of time-dependent problems. **(82c:65059)**

Dixon, L. C. W. (*with* Morgan, D. J.; Harrison, David) On singular cases arising from Galerkin's method. **(82k:65061)**

Elcrat, Alan R. Spatial decay for the Navier-Stokes equations. **(82m:35119)**

Fasel, Hermann F. Numerical solution of the complete Navier-Stokes equations for the simulation of unsteady flows. **(82d:65079)**

Foiaş, Ciprian (*with* Temam, Roger) Solutions statistiques homogènes des équations de Navier-Stokes. **(82m:35120)**

A survey on the functional dynamical system generated by the Navier-Stokes equations. **(82c:35065)**

(*with* Temam, Roger) Solutions statistiques homogènes des équations de Navier-Stokes. [Homogeneous statistical solutions of Navier-Stokes equations] **(82j:35123)**

(*with* Treve, Y. M.) Minimum number of modes for the approximation of the solutions of the Navier-Stokes equations in two and three dimensions. **(82j:76052)**

Frederiksen, C. S. (*with* Watts, A. M.) Finite-element method for time-dependent incompressible free surface flow. **(82e:65108)**

Galazjuk, V. A. (*with* Gorečko, A. N.) Investigation of nonstationary wave processes in a viscous compressible fluid by the Čebyšev-Laguerre-polynomials method. (Russian. English summary) **(82g:76027)**

Gorečko, A. N. *See* **Galazjuk, V. A., (82g:76027)**

Gottlieb, David *See* **Abarbanel, Saul, (82f:65097)**

Gresho, Philip M. *See* **Leone, John M., Jr., (82g:76007)**

Gupta, Murli M. A comparison of numerical solutions of convective and divergence forms of the Navier-Stokes equations for the driven cavity problem. **(82k:65053)**

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Višik, M. I. (*with* Komeč, A. I.) Stationary solutions of the stochastic Navier-Stokes equations. **(82h:35085)**

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Zaharov, Ju. N. (*with* Okuncov, V. V.) Scheme with "nonlinear viscosity" for solution of a stationary system of Navier-Stokes equations. (Russian) **(82a:65097)**

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Aziz, Abdul (*with* Na, Tsung Yen) New approach to the solution of Falkner-Skan equation. **82j:76030**

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Duck, P. W. Torsional oscillations of a finite disk. **82i:76029**

Dwyer, Harry A. Some aspects of three-dimensional laminar boundary layers. (*See* **82f:76001**)

Gaster, M. On transition to turbulence in boundary layers. (*See* **82k:76002**)

Gersten, K. Second-order boundary layer effects for large injection or suction. (*See* **82c:76004**)

Hunt, Roland (*with* Wilks, Graham) Continuous transformation computation of boundary layer equations between similarity regimes. **82i:76030**

Husnutdinova, N. V. On conditions for the existence of an intact boundary layer at increasing pressure. (Russian) **82e:76037**

Joseph, Daniel D. Boundary conditions for thin lubrication layers. **82h:76020**

Jovanovič, J. (*with* Aškovič, Radomir) Équations universelles de la deuxième approximation de la couche limite. **82j:76031**

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Lipatov, I. I. Three-dimensional flow of a laminar boundary layer around a small irregularity. (Russian) **82c:76038**

Maksimov, V. A. (*with* Potanina, V. L.) A mathematical model of slide bearings for a turbine engine and its numerical realization. (Russian) (*See* **82b:76001**)

Mastro, R. A. .(*with* Voss, David A.) A quintic spline collocation procedure for solving the Falkner-Skan boundary-layer equation. **82c:76039**

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Soundalgekar, V. M. (*with* Desai, G. A.) Finite-difference analysis of laminar flow in entry length of an annulus of two rotating cylinders. **82d:76028**

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Piskorek, Adam (*with* Zabrodzki, E.) Über die instationären hydrodynamischen Potentiale. **(82i:35147)**
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Akinrelere, E. A. Effects of arbitrary Prandtl number on a forced convection flow near laminar separation. **82a:76027**
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76D20 Higher-order effects in boundary layers

76D25 Wakes and jets

Bobnev, A. A. (*with* Haĭtman, S. M.) A nonisothermal semibounded two-dimensional jet of incompressible viscous fluid. (Russian) **82c:76046**
Brujackii, E. V. Principal integral equations for a jet in drift [cross] flow. **82d:76029**
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76D35 Random waves

76D99 None of the above, but in this section

Aswarthanarayana, C. *See* **Purushotham, G., 82h:76032**
Bemelmans, J. Liquid drops in a viscous fluid under the influence of gravity and surface tension. **82k:76026**
Benney, D. J. (*with* Timson, W. J.) The rolling motion of a viscous fluid on and off a rigid surface. **82a:76029**
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Kubo, Syozo (*with* Kitano, Yukio) Secondary flow induced by a circular cylinder oscillating in two directions. **82a:76032**
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On the effect of parallel and transverse stationary random surface roughness in hydrodynamics lubrication. **82e:76027**
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Similarity solutions to the nonisothermal, two-dimensional squeezing flow of a viscous fluid. **82k:76029**
Prosperetti, Andrea *See* **Cortelezzi, L., 82m:76025**
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(*with* Sigovcev, G. S.) On the method of successive approximations for a problem on the motion of a drop with account taken of the thermocapillary effect. (Russian) **82k:76030**
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Smyšljaev, P. P. Optimization of the heating of a strongly viscous heat conducting medium. (Russian. Kazakh summary) **82i:76036**
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Wang, Chang Yi Arbitrary squeezing of fluid from a tube at low squeeze numbers. (German summary) **82c:76050**
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Barnjak, M. Ja. Approximate methods of solution of fundamental boundary value problems of fluid dynamics in vertical cylindrical bands. (Russian) **(82f:76006)**
Bathe, Klaus-Jürgen *See* **Engelman, M. S.; et al., (82f:76005)**
Böhm, Michael ★On a nonlinear evolution equation. **(82k:34068)**
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Cimatti, G. (*with* Menchi, O.) On the numerical solution of a variational inequality connected with the hydrodynamic lubrication of a complete journal bearing. **(82j:35138)**
Cliffe, K. A. *See* **Jackson, C. P., (82m:76004)**
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Dezin, A. A. (*with* Zelenjak, T. I.; Maslennikova, V. N.) Some mathematical problems in hydrodynamics. (Russian) **(82i:35150)**
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Slobožanin, L. A. *See* **Babskiĭ, V. G.; et al., (82a:76001)**
Soliman, M. O. (*with* Baker, A. J.) Accuracy and convergence of a finite element algorithm for laminar boundary layer flow. **(82e:76025)**
Strang, Gilbert *See* **Engelman, M. S.; et al., (82f:76005)**
Tassoulas, John L. *See* **Kausel, Eduardo, (82m:86005)**
Tjupcov, A. D. *See* **Babskiĭ, V. G.; et al., (82a:76001)**
Vakulenko, S. A. *See* **Ljaško, Ĭ. Ĭ.; et al., (82k:76007)**
Zaprjanov, Zaprjan Dimitrov (*with* Matakiev, V.) An exact solution of the problem of unsteady fully-developed viscous flow in slightly curved porous tube. (Polish and Russian summaries) **(82g:76041)**
Zelenjak, T. I. *See* **Dezin, A. A.; et al., (82i:35150)**

76Exx Hydrodynamic stability

Drazin, P. G. (*with* Reid, William Hill) ★Hydrodynamic stability. **82h:76021**
Reid, William Hill *See* **Drazin, P. G., 82h:76021**
Roesner, K. G. An analytical approach to the determination of neutral stability curves. (*See* **82c:76004**)

secondary classifications:

(Meyer, Richard E.) *See* **Transition and turbulence, (82k:76002)**
Instability of flows and turbulence ★Instability of flows and turbulence. (Japanese) **(82d:76001)**
Madison, Wis. ★Transition and turbulence. **(82k:76002)**
Symposium:
Instability of Flows and Turbulence ★Instability of flows and turbulence. (Japanese) **(82d:76001)**
Transition and Turbulence ★Transition and turbulence. **(82k:76002)**
Transition and turbulence ★Transition and turbulence. **(82k:76002)**
Turbulence ★Instability of flows and turbulence. (Japanese) **(82d:76001)**

76E05 Stability of parallel flows

Asai, M. *See* **Nishioka, M.; et al., (*See* 82k:76002)**
Iida, S. *See* **Nishioka, M.; et al., (*See* 82k:76002)**
Itoh, N. Secondary instability of laminar flows. **82f:76013**
Ljapidevskiĭ, V. Ju. "Shallow water" approximation for vortex flows of an ideal fluid. (Russian) **82g:76016**
Molorodov, Ju. I. *See* **Skobelev, B. Ju., 82h:76023**
Nayfeh, Ali Hasan *See* **Ragab, S. A., 82j:76039**
Ng, B. S. (*with* Reid, William Hill) On the numerical solution of the Orr-Sommerfeld problem: asymptotic initial conditions for shooting methods. **82h:76022**
Nishioka, M. (*with* Asai, M.; Iida, S.) Wall phenomena in the final stage of transition to turbulence. (*See* **82k:76002**)
Orszag, Steven A. (*with* Patera, Anthony T.) Subcritical transition to turbulence in planar shear flows. (*See* **82k:76002**)
See also **Patera, Anthony T., 82i:76037**
Patera, Anthony T. (*with* Orszag, Steven A.) Transition and turbulence in planar channel flows. **82i:76037**
See also **Orszag, Steven A., (*See* 82k:76002)**
Ragab, S. A. (*with* Nayfeh, Ali Hasan) Görtler instability. **82j:76039**
Reid, William Hill Turning-point problems for ordinary differential equations of hydrodynamic type. **82d:76038**
See also **Ng, B. S., 82h:76022**
Ryžov, O. S. *See* **Žuk, V. I., 82c:76051**
Skobelev, B. Ju. (*with* Molorodov, Ju. I.) Subcritical auto-oscillations and nonlinear neutral curve for Poiseuille flow. **82h:76023**
See also **Struminskiĭ, V. V., 82i:76038**
Struminskiĭ, V. V. (*with* Skobelev, B. Ju.) A nonlinear neutral curve for Poiseuille flow. (Russian) **82i:76038**
Stuart, J. T. Instability and transition in pipes and channels. (*See* **82k:76002**)
Žuk, V. I. (*with* Ryžov, O. S.) Free interaction and stability of the boundary layer in an incompressible fluid. (Russian) **82c:76051**

secondary classifications:

Brown, S. N. (*with* Stewartson, Keith) On the algebraic decay of disturbances in a stratified linear shear flow. **(82j:76086)**
Gersting, John M., Jr. Computational methods in hydrodynamic stability: HYDROPACK. (*See* **82b:65074**)
Stewartson, Keith *See* **Brown, S. N., (82j:76086)**

76E10 Inertial instability

Benjamin, T. Brooke New observations in the Taylor experiment. (*See* **82k:76002**)
(*with* Mullin, T.) Anomalous modes in the Taylor experiment. **82i:76039**
Brown, Robert Arthur (*with* Scriven, L. E.) The shape and stability of rotating liquid drops. **82m:76027**
Carmi, S. (*with* Tustaniwskyj, J. I.) Linear stability of modulated finite gap Taylor flow. **82c:76052**
DiPrima, R. C. Transition in flow between rotating concentric cylinders. (*See* **82k:76002**)
Duck, P. W. (*with* Hall, Philip) The centrifugal instability of a Stokes layer: asymmetric disturbances. (German summary) **82g:76017**
Hall, Philip *See* **Duck, P. W., 82g:76017**
Mullin, T. *See* **Benjamin, T. Brooke, 82i:76039**
Pelissier, R. Stability of pseudoperiodic flow. (French summary) **82a:76034**
Scriven, L. E. *See* **Brown, Robert Arthur, 82m:76027**
Tustaniwskyj, J. I. *See* **Carmi, S., 82c:76052**
Yahata, Hideo A simple model for the Taylor vortex flow. **82j:76040**

secondary classifications:

Badratinova, L. G. The stability margin of a cylindrical equilibrium state of a rotating fluid. (Russian) **(82k:76073)**
DiPrima, R. C. *See* **Stuart, J. T., (82b:76021)**
L'vov, V. S. (*with* Nesterihin, Ju. E.) Transition to turbulence in simple hydrodynamic flows. (Russian) **(82g:58053)**
(*with* Predtečenskiĭ, A. A.) On Landau and stochastic attractor pictures in the problem of transition of turbulence. **(82h:76027)**
Nesterihin, Ju. E. *See* **L'vov, V. S., (82g:58053)**
Predtečenskiĭ, A. A. *See* **L'vov, V. S., (82h:76027)**
Sazontov, A. G. Concerning the selection of convective structures in a fluid with temperature-dependent viscosity. **(82g:76037)**
Stuart, J. T. (*with* DiPrima, R. C.) On the mathematics of Taylor-vortex flows in cylinders of finite length. **(82b:76021)**

76E15 Convective instability

(Briskman, V. A.) *See* **Convective flows and hydrodynamic stability, 82d:76041**
Brown, S. N. (*with* Rosen, A. S.; Maslowe, S. A.) The evolution of a quasisteady critical layer in a stratified viscous shear layer. **82f:76014**
Busse, F. H. (*with* Clever, R. M.) Nonstationary convection in a rotating system. (*See* **82c:76004**)
Transition to turbulence in thermal convection with and without rotation. (*See* **82k:76002**)
Chakrabarti, Anjali (*with* Gupta, A. S.) Nonlinear thermohaline convection in a rotating porous medium. **82e:76029**
Clever, R. M. *See* **Busse, F. H., (*See* 82c:76004)**
Da Costa, L. N. (*with* Knobloch, Edgar; Weiss, N. O.) Oscillations in double-diffusive convection. **82j:76041**
Daniels, P. G. The effect of sidewalls on overstable convection in a rotating fluid. **82b:76033**

Davis, Stephen H. *See* **Rosenblat, S.; et al., 82k:76034**
Enz, Charles P. Perturbative analysis of the convection instability. **82c:76053**
Garifullin, F. A. (*with* Zapparov, F. I.; Mingaleev, N. Z.; Norden, P. A.) Cellular convection in a viscoelastic fluid. (Russian) **82k:76032**
Gertsberg, V. L. (*with* Sivashinsky, G. I.) Large cells in nonlinear Rayleigh-Bénard convection. **82m:76028**
Gupta, A. S. *See* **Chakrabarti, Anjali, 82e:76029**
Ho, S. P. *See* **Hsieh, D. Y., 82b:76034**
Homsy, G. M. *See* **Rosenblat, S.; et al., 82k:76034**
Hsieh, D. Y. (*with* Ho, S. P.) Rayleigh-Taylor stability with mass and heat transfer. **82b:76034**
Knobloch, Edgar (*with* Proctor, M. R. E.) Nonlinear periodic convection in double-diffusive systems. **82j:76042**
See also **Da Costa, L. N.; et al., 82j:76041**
Lebon, G. (*with* Perez-Garcia, C.) Study of surface tension effects in thermal convection by variational methods. **82d:76039**
Manneville, Paul *See* **Pomeau, Y., 82k:76033**
Maslowe, S. A. *See* **Brown, S. N.; et al., 82f:76014**
Mingaleev, N. Z. *See* **Garifullin, F. A.; et al., 82k:76032**
Norden, P. A. *See* **Garifullin, F. A.; et al., 82k:76032**
Perez-Garcia, C. *See* **Lebon, G., 82d:76039**
Pomeau, Y. (*with* Manneville, Paul) Wavelength selection in axisymmetric cellular structures. (French summary) **82k:76033**
Proctor, M. R. E. *See* **Knobloch, Edgar, 82j:76042**
Rosen, A. S. *See* **Brown, S. N.; et al., 82f:76014**
Rosenblat, S. (*with* Homsy, G. M.; Davis, Stephen H.) Eigenvalues of the Rayleigh-Bénard and Marangoni problems. **82k:76034**
Sengupta, S. Effect of rotation on a heated horizontal layer of dissociating fluid. **82d:76040**
Sharma, K. N. *See* **Sharma, R. C., 82b:76035**
Sharma, R. C. (*with* Sharma, K. N.) Magnetothermohaline convection through porous medium. **82b:76035**
Shearer, Michael (*with* Walton, I. C.) On bifurcation and symmetry in Bénard convection and Taylor vortices. **82m:76029**
Sitt, Bernard Sur les instabilités convectives linéaires dans un fluide compressible non dissipatif. (English summary) **82a:76035**
Sivashinsky, G. I. *See* **Gertsberg, V. L., 82m:76028**
Spiridonov, V. G. *See* **Zahariev, V. I., 82c:76054**
(Tarunin, E. L.) *See* **Convective flows and hydrodynamic stability, 82d:76041**
Walton, I. C. *See* **Shearer, Michael, 82m:76029**
Weiss, N. O. *See* **Da Costa, L. N.; et al., 82j:76041**
Zahariev, V. I. (*with* Spiridonov, V. G.) The effect of an external horizontal flow on the development of convection. (Russian) **82c:76054**
Zapparov, F. I. *See* **Garifullin, F. A.; et al., 82k:76032**
Convective flows and hydrodynamic stability ★Конвективные течения и гидродинамическая устойчивость. (Russian) [Convective flows and hydrodynamic stability] **82d:76041**
Hydrodynamic stability ★Конвективные течения и гидродинамическая устойчивость. (Russian) [Convective flows and hydrodynamic stability] **82d:76041**

secondary classifications:

Antoranz, J. C. *See* **Velarde, M. G., (82b:81158)**
Banerjee, Kalyan *See* **Banerjee, M. B.; et al., (82k:76065)**
Banerjee, M. B. (*with* Katoch, D. C.; Dube, G. S.; Banerjee, Kalyan) Bounds for growth rate of a perturbation in thermohaline convection. **(82k:76065)**
Barkovskiĭ, Ju. S. (*with* Judovič, V. I.) Spectral properties of a class of boundary value problems. (Russian) **(82e:34019)**
Bramley, J. S. *See* **Wilks, Graham, (82j:76076)**
Dube, G. S. *See* **Banerjee, M. B.; et al., (82k:76065)**
Judovič, V. I. *See* **Barkovskiĭ, Ju. S., (82e:34019)**
Katoch, D. C. *See* **Banerjee, M. B.; et al., (82k:76065)**
Nikitin, L. V. (*with* Ryžak, E. I.) Accuracy of the Boussinesq approximation for an incompressible fluid. **(82k:76064)**
Ryžak, E. I. *See* **Nikitin, L. V., (82k:76064)**
Velarde, M. G. (*with* Antoranz, J. C.) Laser with saturable absorber and two-component Bénard convection: limit cycle behaviour. **(82b:81158)**
Wilks, Graham (*with* Bramley, J. S.) Dual solutions in mixed convection. **(82j:76076)**

76E20 Instability of geophysical and astrophysical flows

Frenzen, Christopher *See* **Pedlosky, Joseph, 82i:76040**
Griščuk, L. P. (*with* Zel'dovič, Ja. B.) Gravitational instability in a multicomponent fluid. **82m:76030**
Kálnay-Rivas, Eugenia A numerical scheme to solve unstable boundary value problems. **82c:76055**
Lindzen, Richard S. (*with* Rosenthal, Arthur J.) A WKB asymptotic analysis of baroclinic instability. **82k:76035**
Pedlosky, Joseph (*with* Frenzen, Christopher) Chaotic and periodic behavior of finite-amplitude baroclinic waves. **82i:76040**
Rosenthal, Arthur J. *See* **Lindzen, Richard S., 82k:76035**
Zel'dovič, Ja. B. *See* **Griščuk, L. P., 82m:76030**

secondary classifications:

Adam, J. A. Mechanical wave-energy flux in magnetoatmospheres: discrete and continuous spectra. **(82m:85002)**
Ališaev, D. M. Dynamics of the two-dimensional baroclinic atmosphere. **(82g:86016)**
Andrade, R. F. S. (*with* Rauh, A.) The Lorenz model and the method of Carleman embedding. **(82g:58049)**
Asséo, E. (*with* Cesarsky, C. J.; Lachieze-Rey, M.; Pellat, R.) Energy principle and the interstellar medium. II. Curved equilibria. **(82d:85001)**
Benney, D. J. *See* **Liu, A. K., (82g:76010)**
Carmi, S. (*with* Sinha, S. C.) Asymptotic stability of unsteady inviscid stratified flows. **(82b:86003)**
Cesarsky, C. J. *See* **Asséo, E.; et al., (82d:85001)**
Dolginov, A. Z. (*with* Ostrjakov, V. M.) Rayleigh-Taylor instability in the plasma of solar prominences. **(82i:85007)**
Eriguchi, Yoshiharu (*with* Sugimoto, Daiichiro) Another equilibrium sequence of self-gravitating and rotating incompressible fluid. **(82i:76094)**
Fridman, A. M. (*with* Palouš, Jan; Paša, I. I.) Collisionless shock-waves in stellar systems. **(82a:85001)**
Friedlander, Susan ★An introduction to the mathematical theory of geophysical fluid dynamics. **(82g:86001)**
Genkin, I. L. (*with* Nužnova, T. N.) On the stability of a circular torus. (Russian. English summary) **(82k:85002)**
Haken, Hermann *See* **Mayer-Kress, G., (82g:58054)**
Hu, Wen Rui *See* **Liu, Zun Quan; et al., (82j:85001)**
Hunter, James H., Jr. (*with* Schweiker, Kevin S.) On the development of vorticity and waves in shearing media with preliminary application to the solar nebula. **(82f:85002)**
Kopal, Zdeněk Vibrational stability of rotating stars. **(82i:85003)**
Korčagin, P. I. *See* **Korčagin, V. I., (82j:76043)**
Korčagin, V. I. (*with* Korčagin, P. I.) Modulation instability of spiral density waves. **(82j:76043)**
Lachieze-Rey, M. *See* **Asséo, E.; et al., (82d:85001)**
Liu, A. K. (*with* Benney, D. J.) The evolution of nonlinear wave trains in stratified shear flows. **(82g:76010)**
Liu, Zun Quan (*with* Qin, Yuan Xun; Hu, Wen Rui) Numerical solutions of unsteady two-dimensional hydrodynamics of spiral nebula in a self-gravitational field. (Chinese. English summary) **(82j:85001)**
Mayer-Kress, G. (*with* Haken, Hermann) Intermittent behavior of the logistic system. **(82g:58054)**
Novikov, V. L. The variational principle of advective motions. (Russian) **(82i:86004)**
Nužnova, T. N. *See* **Genkin, I. L., (82k:85002)**
Ostrjakov, V. M. *See* **Dolginov, A. Z., (82i:85007)**
Paklina, E. P. (*with* Slitinskaja, S. K.) The origin of limit cycles in the Salzmann-Lorenz system. (Russian) **(82g:58068)**
Palaniswamy, V. I. (*with* Purushotham, C. M.) Stability of shear flow of stratified fluids with fine dust. **(82g:76019)**
Palmer, Philip L. Stability of contracting pancakes. **(82i:85002)**
Palouš, Jan *See* **Fridman, A. M.; et al., (82a:85001)**
Paša, I. I. *See* **Fridman, A. M.; et al., (82a:85001)**
Pellat, R. *See* **Asséo, E.; et al., (82d:85001)**
Press, William H. (*with* Rybicki, George B.) Enhancement of passive diffusion and suppression of heat flux in a fluid with time-varying shear. **(82h:85006)**
Purushotham, C. M. *See* **Palaniswamy, V. I., (82g:76019)**
Qin, Yuan Xun *See* **Liu, Zun Quan; et al., (82j:85001)**
Rauh, A. *See* **Andrade, R. F. S., (82g:58049)**
Rogers, Joel C. W. Stability, energy conservation and turbulence for water waves. **(82h:35063)**
Roščin, N. V. Unsafe stability boundaries of the Lorenz model. **(82g:58059)**
Rybicki, George B. *See* **Press, William H., (82h:85006)**
Saffman, Philip G. Long wavelength bifurcation of gravity waves on deep water. **(82a:76015)**
Schweiker, Kevin S. *See* **Hunter, James H., Jr., (82f:85002)**
Sinha, S. C. *See* **Carmi, S., (82b:86003)**
Slitinskaja, S. K. *See* **Paklina, E. P., (82g:58068)**
Sugimoto, Daiichiro *See* **Eriguchi, Yoshiharu, (82i:76094)**

76E25 Magnetohydrodynamic and electrohydrodynamic instabilities

Banerjee, M. B. (*with* Gupta, J. R.; Behl, R. L.) Rayleigh-Taylor instability with Hall-currents. **82c:76056**
Bauer, Frances (*with* Betancourt, O.; Garabedian, P.) Nonlinear magnetohydrodynamic stability. **82a:76036**
Behl, R. L. *See* **Banerjee, M. B.; et al., 82c:76056**
Betancourt, O. *See* **Bauer, Frances; et al., 82a:76036**
Beyer, K. Zur Stabilität einer ferromagnetischen Flüssigkeit in einem vertikalen Magnetfeld. (English and Russian summaries) **82a:76037**
Carbonaro, Bruno On the linearization principle in magnetohydrodynamics. **82a:76038**
Dmitrenko, O. G. A procedure for investigating the stability of helical oscillations of a conducting fluid in a magnetic field. (Russian) **82i:76041b**
Eltayeb, I. A. On the stability and over-reflexion of hydromagnetic-gravity waves. **82f:76015**
Ermakov, V. I. Equilibrium and stability of the interface between ideally conducting and nonconducting fluids between two horizontal slightly curved charged surfaces. (Russian) **82c:76030**
Garabedian, P. *See* **Bauer, Frances; et al., 82a:76036**
Gupta, J. R. *See* **Banerjee, M. B.; et al., 82c:76056**
Ievlev, I. I. On equilibrium and stability of a free surface of a fluid dielectric in an electrical field. (Russian) **82c:76057**
Lucas, R. J. The stability of magnetohydrodynamic shear flow with transverse magnetic field. **82d:76042**
Popov, A. M. (*with* Šabarov, A. Ju.) Study of magnetohydrodynamic stability of a compact torus. (Russian) **82f:76016**
Šabarov, A. Ju. *See* **Popov, A. M., 82f:76016**
(Samoĭlenko, Ju. I.) *See* **Control of objects with distributed parameters, 82i:76041a**
Tarapov, I. E. *See* **Žakin, A. I., 82d:76043**
(Tkačenko, V. A.) *See* **Control of objects with distributed parameters, 82i:76041a**
Žakin, A. I. Convective stability of a binary conducting mixture in a magnetic field. (Russian) **82c:76058**

(*with* Tarapov, I. E.) Electrohydrodynamical instability of a weakly conducting fluid between two cylindrical electrodes with unipolar injection. **82d:76043**

Control of objects with distributed parameters ★Управление объектами с распределенными параметрами. (Russian) [Control of objects with distributed parameters] **82i:76041a**

secondary classifications:

Agrawal, S. C. (*with* Rastogi, B. M.) Instability in a sheared plasma with finite Larmor radius. **82f:76044**

Bauer, Frances (*with* Betancourt, O.; Garabedian, P.; Shobet, J. L.) Beta limits for torsatrons. **82a:76088**

Betancourt, O. *See* **Bauer, Frances; et al., (82a:76088)**

Cai, Shi Dong *See* **Zhou, Yu Mei, (82d:76103)**

Chhabra, R. K. *See* **Malik, S. K., (82e:76081)**

Garabedian, P. *See* **Bauer, Frances; et al., (82a:76088)**

Gomberoff, L. (*with* Maschke, E. K.) Nonideal effects on the stability of a cylindrical current-carrying plasma. **82d:76098)**

Hellsten, T. A. K. *See* **Spies, G. O., (82a:76095)**

Lebovitz, N. R. On the fluid dynamics of evolving stars. **(82i:85004)**

Malik, S. K. (*with* Chhabra, R. K.) Nonlinear stability of a weakly ionised cylindrical plasma. **82e:76081)**

Maschke, E. K. *See* **Gomberoff, L., (82d:76098)**

Rastogi, B. M. *See* **Agrawal, S. C., (82f:76044)**

Shobet, J. L. *See* **Bauer, Frances; et al., (82a:76088)**

Spies, G. O. (*with* Hellsten, T. A. K.) Necessary magnetohydrodynamic stability criterion for rotating plasmas. **(82a:76095)**

Tsinganos, Kanaris C. Magnetohydrodynamic equilibrium. I. Exact solutions of the equations. **(82g:76047)**

Zhou, Yu Mei (*with* Cai, Shi Dong) Parametric instabilities with well-separated frequencies in magnetized plasma. (Chinese. English summary) **(82d:76103)**

76E30 Nonlinear effects

Benney, D. J. (*with* Gustavsson, L. Håkan) A new mechanism for linear and nonlinear hydrodynamic instability. **82g:76018**

Chapman, C. J. (*with* Proctor, M. R. E.) Nonlinear Rayleigh-Bénard convection between poorly conducting boundaries. **82d:76044**

Dutton, John A. *See* **Shirer, Hampton N., 82j:76044**

Gustavsson, L. Håkan *See* **Benney, D. J., 82g:76018**

Holmes, Philip J. *See* **Leibovich, S., 82e:76031**

Korčagin, P. I. *See* **Korčagin, V. I., 82j:76043**

Korčagin, V. I. (*with* Korčagin, P. I.) Modulation instability of spiral density waves. **82j:76043**

Leibovich, S. (*with* Holmes, Philip J.) Global stability of the Burgers vortex. **82e:76031**

Proctor, M. R. E. *See* **Chapman, C. J., 82d:76044**

Shirer, Hampton N. (*with* Dutton, John A.) The branching hierarchy of multiple solutions in a model of moist convection. **82j:76044**

Stewartson, Keith Marginally stable inviscid flows with critical layers. **82j:76045**

Weinstein, M. Nonlinear instability in plane Poiseuille flow: a quantitative comparison between the methods of amplitude expansions and the method of multiple scales. **82m:76031**

secondary classifications:

Gorman, M. (*with* Swinney, Harry L.; Rand, David A.) Doubly periodic circular Couette flow: experiments compared with predictions from dynamics and symmetry. **(82f:58061)**

Hassard, Brian D. (*with* Kazarinoff, Nicholas D.; Wan, Yieh Hei) ★Theory and applications of Hopf bifurcation. **(82j:58089)**

Kazarinoff, Nicholas D. *See* **Hassard, Brian D.; et al., (82j:58089)**

Rand, David A. *See* **Gorman, M.; et al., (82f:58061)**

Swinney, Harry L. *See* **Gorman, M.; et al., (82f:58061)**

Wan, Yieh Hei *See* **Hassard, Brian D.; et al., (82j:58089)**

76E99 None of the above, but in this section

Agrawal, S. C. (*with* Rastogi, B. M.) A note on the reduction of Howard's semicircle. **82d:76045**

Andreev, V. K. Small perturbations of a spherical layer of a fluid. (Russian) **82j:76046**

Bodonyi, R. J. (*with* Smith, F. T.) The upper branch stability of the Blasius boundary layer, including nonparallel flow effects. **82d:76046**

Cebeci, Tuncer (*with* Stewartson, Keith) Asymptotic properties of the zarf. **82e:76032**

Craik, A. D. D. The development of wavepackets in unstable flows. **82h:76036**

Dhanak, M. R. The stability of an expanding circular vortex layer. **82j:76047**

Entov, V. M. (*with* Jarin, A. L.) Transverse stability of a liquid jet in a counterflowing air stream. **82h:76037**

Enz, Charles P. Hydrodynamic models with random forces. **82d:76047**

Gersting, John M., Jr. The hydrodynamic stability of the plane asymptotic suction profile with slip. **82d:76048**

Goldstein, M. E. The coupling between flow instabilities and incident disturbances at a leading edge. **82d:76049**

Grosch, Chester E. *See* **Salwen, Harold, 82k:76036**

Hasegawa, Eiji *See* **Iwasaki, Yasuo, 82d:76051**

Ho, S. P. Linear Rayleigh-Taylor stability of viscous fluids with mass and heat transfer. **82c:76059**

Hocking, L. M. (*with* Skiepko, J.) The instability of flow in the narrow gap between two prolate spheroids. I. Small axis ratio. **82d:76050**

Iwasaki, Yasuo (*with* Hasegawa, Eiji) Stability of a liquid layer down the surface of a vertical rotating cylinder. **82d:76051**

Jarin, A. L. *See* **Entov, V. M., 82h:76037**

Kawasaki, Kyozi *See* **Onuki, Akira, 82j:76048**

Kuznecov, E. N. *See* **Vasilenko, Ju. G.; et al., 82d:76053**

Laufer, J. Instability and turbulence in jets. (*See* **82k:76002**)

L'vov, V. S. *See* **Vasilenko, Ju. G.; et al., 82d:76053**

Nesterihin, Ju. E. *See* **Vasilenko, Ju. G.; et al., 82d:76053**

Onuki, Akira (*with* Kawasaki, Kyozi) Critical phenomena in two-dimensional incompressible flows. **82j:76048**

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Rastogi, B. M. *See* **Agrawal, S. C., 82d:76045**

Salwen, Harold (*with* Grosch, Chester E.) The continuous spectrum of the Orr-Sommerfeld equation. II. Eigenfunction expansions. **82k:76036**

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Vladimirov, V. A. Stability of flows of an ideal incompressible fluid with circular flow lines. (Russian) **82c:76061**

Žigulev, V. N. (*with* Sidorenko, N. V.; Tumin, A. M.) Generation of waves of instability in a boundary layer by external turbulence. (Russian) **82h:76024**

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Capodanno, Pierre Sur les mouvements d'un profil possédant une cavité partiellement remplie de liquide voisins d'un mouvement de translation horizontale uniforme. **(82k:76017)**

Čelyškov, V. S. Spatial perturbations of plane flows. (Russian) **(82m:76035)**

Dalle-Vedove, Walter (*with* Sanfeld, Albert) Instabilité hydrodynamique interfaciale induite par une réaction enzymatique non autocatalytique. (English summary) [Interfacial hydrodynamic instability induced by a nonautocatalytic enzyme reaction] **(82m:92021)**

Dezin, A. A. (*with* Zelenjak, T. I.; Maslennikova, V. N.) Some mathematical problems in hydrodynamics. (Russian) **(82i:35150)**

Duck, P. W. (*with* Hall, Philip) The centrifugal instability of a Stokes layer: asymmetric disturbances. (German summary) **(82g:76017)**

Fusco, Giorgio An example of bifurcation in hydrostatics. **(82f:58030)**

Hall, Philip *See* **Duck, P. W., (82g:76017)**

Hinch, E. J. The evolution of slender inviscid drops in an axisymmetric straining flow. **(82a:76018)**

Hlaváček, Ivan Some variational methods for nonlinear mechanics. **(82i:65076)**

Joseph, Daniel D. Instability of the rest state of fluids of arbitrary grade greater than one. **(82g:76004)**

Maslennikova, V. N. *See* **Dezin, A. A.; et al., (82i:35150)**

Newell, Alan C. Bifurcation and nonlinear focusing. (*See* **82k:00028**)

Nilsson, Börje (*with* Brander, Olle) The propagation of sound in cylindrical ducts with mean flow and bulk-reacting lining. I. Modes in an infinite duct. **(82i:76076a)**

(*with* Brander, Olle) The propagation of sound in cylindrical ducts with mean flow and bulk-reacting lining. II. Bifurcated ducts. **(82i:76076b)**

Orszag, Steven A. *See* **Patera, Anthony T., (82m:76021)**

Patera, Anthony T. (*with* Orszag, Steven A.) Finite-amplitude stability of axisymmetric pipe flow. **(82m:76021)**

Saffman, Philip G. (*with* Szeto, R. K.-H.) Equilibrium shapes of a pair of equal uniform vortices. **(82a:76020)**

Sanfeld, Albert *See* **Dalle-Vedove, Walter, (82m:92021)**

Szeto, R. K.-H. *See* **Saffman, Philip G., (82a:76020)**

Zelenjak, T. I. *See* **Dezin, A. A.; et al., (82i:35150)**

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Gaponov, S. A. (*with* Maslov, A. A.) ★Развитие возмущений в сжимаемых потоках. (Russian) [Development of perturbations in compressible flows] **82g:76021**

(Jimenez, Javier) *See* **Role of coherent structures in modelling turbulence and mixing, 82c:76062**

Maslov, A. A. *See* **Gaponov, S. A., 82g:76021**

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Role of Coherent Structures in Modelling Turbulence and Mixing ★The role of coherent structures in modelling turbulence and mixing. **82c:76062**

Madrid ★The role of coherent structures in modelling turbulence and mixing. **82c:76062**

Role of coherent structures in modelling turbulence and mixing ★The role of coherent structures in modelling turbulence and mixing. **82c:76062**

Structures ★The role of coherent structures in modelling turbulence and mixing. **82c:76062**

Turbulence ★The role of coherent structures in modelling turbulence and mixing. **82c:76062**

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(Meyer, Richard E.) *See* **Transition and turbulence, (82k:76002)**
(Šil'nikov, L. P.) *See* **Strange attractors, (82f:58065)**
(Sinai, Ja. G.) *See* **Strange attractors, (82f:58065)**
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Madison, Wis. ★Transition and turbulence. **(82k:76002)**
Strange attractors ★Странные аттракторы. (Russian) [Strange attractors] **(82f:58065)**
Symposium:
Instability of Flows and Turbulence ★Instability of flows and turbulence. (Japanese) **(82d:76001)**
Transition and Turbulence ★Transition and turbulence. **(82k:76002)**
Transition and turbulence ★Transition and turbulence. **(82k:76002)**
Turbulence ★Instability of flows and turbulence. (Japanese) **(82d:76001)**

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Carnevale, George F. (*with* Frisch, Uriel; Salmon, Rick) *H* theorems in statistical fluid dynamics. **82g:76022**
Doi, Masaaki *See* **Kambe, Ryouichi; et al., 82d:76055**
Frisch, Uriel *See* **Carnevale, George F.; et al., 82g:76022** *and* **Morf, Rudolf H.; et al., 82j:76049**
Fujisaka, H. *See* **Mori, Hazime,** (*See* **82k:00028**)
Guleckaja, I. F. (*with* Lisin, F. N.) Complex heat exchange of dispersed turbulent flow in a pipe. (Russian) **82d:76054**
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Jakuškin, I. G. Description of turbulence in the Burgers model. **82k:76037**
Kambe, Ryouichi (*with* Doi, Masaaki; Imamura, Tsutomu) Turbulent flows near flat plates. **82d:76055**
Kuznecov, E. N. (*with* L'vov, V. S.) On developed hydrodynamic turbulence spectra. **82h:76025**
Lainé, Claudine Sur les aspects mathématiques de modèles de viscosité de la turbulence en écoulement établi de conduite plane. (English summary) **82a:76039**
Lisin, F. N. *See* **Guleckaja, I. F., 82d:76054**
L'vov, V. S. *See* **Kuznecov, E. N., 82h:76025**
Meiron, Daniel I. *See* **Morf, Rudolf H.; et al., 82j:76049**
Meneguzzi, Maurice *See* **Morf, Rudolf H.; et al., 82j:76049**
Morf, Rudolf H. (*with* Orszag, Steven A.; Meiron, Daniel I.; Frisch, Uriel; Meneguzzi, Maurice) Analytic structure of high Reynolds number flows. **82j:76049**
Mori, Hazime (*with* Fujisaka, H.) A simplified theory of intermittent fully-developed turbulence. (*See* **82k:00028**)
Anomalous diffusion of vorticity in fully-developed turbulence. **82j:76050**
Orszag, Steven A. *See* **Morf, Rudolf H.; et al., 82j:76049**
Rosen, Gerald Incompressible fluid turbulence at large Reynolds numbers: theoretical basis for the t^{-1} decay law and the form of the longitudinal correlation function. **82j:76051**
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Asymptotic form of the longitudinal correlation function for isotropic homogeneous turbulence. **82a:76040**
Ruelle, David Microscopic fluctuations and turbulence. **82e:76033**
Salmon, Rick *See* **Carnevale, George F.; et al., 82g:76022**
Sazontov, A. G. Spectra of two-dimensional turbulence. (Russian) **82k:76038**
Sosinovič, V. A. Closed equation for the structure function of an isotropic turbulent velocity field. **82m:76033**
Tatsumi, Tomomasa *See* **Yanase, Shinichiro, 82m:76034**
Yanase, Shinichiro (*with* Tatsumi, Tomomasa) The modified cumulant expansion for two-dimensional homogeneous turbulence with a mean flow. **82m:76034**

secondary classifications:

Foiaş, Ciprian (*with* Temam, Roger) Homogeneous statistical solutions of Navier-Stokes equations. **(82g:35097)**
Jones, F. C. *See* **Völk, H. J.; et al., (82b:85009)**
Kljackin, V. I. ★Стохастические уравнения и волны в случайно-неоднородных средах. (Russian) [Stochastic equations and waves in randomly inhomogeneous media] **(82b:60066)**
Morfill, G. E. *See* **Völk, H. J.; et al., (82b:85009)**
Pietzsch, Wolfgang *See* **Werner, Udo, (82f:33009)**
Röser, S. *See* **Völk, H. J.; et al., (82b:85009)**
Syčev, Viktor V. *See* **Syčev, Vladimir V., (82j:76032)**
Syčev, Vladimir V. (*with* Syčev, Viktor V.) Turbulent separation. (Russian) **(82j:76032)**
Temam, Roger *See* **Foiaş, Ciprian, (82g:35097)**
Völk, H. J. (*with* Jones, F. C.; Morfill, G. E.; Röser, S.) Collisions between grains in a turbulent gas. **(82b:85009)**
Werner, Udo (*with* Pietzsch, Wolfgang) Die Polynome $S_\nu(x)$ zur Darstellung der Energiespektralfunktionen idealer Turbulenzfelder. **(82f:33009)**

76F10 Shear flows

Cantwell, Brian J. Organized motion in turbulent flow. (*See* **82f:76001**)
Knight, D. D. (*with* Murray, B. T.) Theoretical investigation of interaction and coalescence of large scale structures in the turbulent mixing layer. (*See* **82c:76062**)
Liu, J. T. C. Interactions between large-scale coherent structures and fine-grained turbulence in free shear flows. (*See* **82k:76002**)
Monkewitz, Martin A. *See* **Monkewitz, Peter A., 82i:76042**
Monkewitz, Peter A. (*with* Monkewitz, Martin A.) The asymptotic solution of the Orr-Sommerfeld equation at large distance from a shear layer. **82i:76042**
Murray, B. T. *See* **Knight, D. D.,** (*See* **82c:76062**)
Saffman, Philip G. Coherent structures in turbulent flow. (*See* **82c:76062**)
Skvorcov, G. E. (*with* Timohov, L. A.) Defining relations of a turbulent fluid. (Russian) **82k:76039**
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secondary classifications:

Asai, M. *See* **Nishioka, M.; et al.,** (*See* **82k:76002**)
Četverikov, V. M. *See* **Pitovranov, S. E., (82b:60067)**
DiPrima, R. C. Transition in flow between rotating concentric cylinders. (*See* **82k:76002**)
Iida, S. *See* **Nishioka, M.; et al.,** (*See* **82k:76002**)
Neiland, V. Ja. (*with* Stepanov, G. Ju.) Laminar and turbulent detached flows. (Russian) **(82c:76040)**
Nishioka, M. (*with* Asai, M.; Iida, S.) Wall phenomena in the final stage of transition to turbulence. (*See* **82k:76002**)
Orszag, Steven A. (*with* Patera, Anthony T.) Subcritical transition to turbulence in planar shear flows. (*See* **82k:76002**)
Patera, Anthony T. *See* **Orszag, Steven A.,** (*See* **82k:76002**)
Pitovranov, S. E. (*with* Četverikov, V. M.) A class of boundary value problems for stochastic differential equations. (Russian. English summary) **(82b:60067)**
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Bellomo, E. (*with* Gaion, A.) The total stress through the turbulent boundary layer. **82i:76043**
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Chambers, A. J. *See* **Antonia, R. A.; et al., 82c:76063**
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Doi, Masaaki (*with* Kambe, Ryouichi; Imamura, Tsutomu; Taniuti, Tosiya) An exact Gaussian solution for the two-dimensional ideal incompressible magnetohydrodynamic turbulence. **82a:76042**
Duhamel, Pierre *See* **Mailliat, Alain, 82h:76028**
Durbin, P. A. (*with* Hunt, J. C. R.) On surface pressure fluctuations beneath turbulent flow round bluff bodies. **82a:76043**
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Feigenbaum, Mitchell J. The onset spectrum of turbulence. **82i:76044**
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Ideriah, F. J. K. Turbulent, axisymmetric buoyant plumes in uniform and stably-stratified surroundings. (*See* **82g:80001**)
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Javorskaja, I. M. (*with* Beljaev, Ju. N.; Monahov, A. A.; Astaf'eva, N. M.; Ščerbakov, S. A.; Vvedenskaja, N. D.) Stability, nonuniqueness and transition to turbulence in the flow between two rotating spheres. (*See* **82d:00008**)
Kambe, Ryouichi *See* **Doi, Masaaki; et al., 82a:76042**
Kida, Shigeo Similar solutions in modified cumulant expansion. **82d:76056**
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Kraichnan, Robert H. (*with* Montgomery, David) Two-dimensional turbulence. **82i:76046**
Krylov, S. F. (*with* Jankov, V. V.) The role of solitons in strong turbulence. **82c:76065**
Lamb, Robert G. A scheme for simulating particle pair motions in turbulent fluid. **82d:76057**
Larisch, E. Turbulence in systems with small parameters. **82j:76054**

Levitan, Ju. L. (*with* Moiseenko, B. D.; Prïimak, V. G.; Roždestvenskiĭ, B. L.; Sidorova, V. K.) Methods of numerical modeling of turbulent flow of a fluid in a channel. (Russian) **82h:76026**

Long, Robert R. (*with* Chen, Tien Chay) Experimental evidence for the existence of the "mesolayer" in turbulent systems. **82f:76018**

Lumley, John L. Coherent structures in turbulence. (*See* **82k:76002**)

L'vov, V. S. (*with* Predtečenskiĭ, A. A.) On Landau and stochastic attractor pictures in the problem of transition of turbulence. **82h:76027**

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Manneville, Paul Statistical properties of chaotic solutions of a one-dimensional model for phase turbulence. **82h:76029**

Miller, Guthrie Statistical theory of magnetohydrodynamic turbulence. **82e:76035**

Mirabel', A. P. (*with* Monin, A. S.) Two-dimensional turbulence. (Russian. English summary) **82i:76047**

Moffatt, H. K. Some developments in the theory of turbulence. (*See* **82g:76002**)

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Monahov, A. A. *See* **Javorskaja, I. M.; et al.,** (*See* **82d:00008**)

Monin, A. S. *See* **Mirabel', A. P., 82i:76047**

Montgomery, David *See* **Kraichnan, Robert H., 82i:76046**

Nagasawa, Kiyoshi (*with* Imamura, Tsutomu; Taniuti, Tosiya) A Gaussian solution for drift wave turbulence and for Rossby wave turbulence. **82a:76045**

Nakazawa, Hiroshi Sample structure of forced Burgers turbulence. **82i:76048**

Nicholson, Dwight R. *See* **Hansen, P. J., 82e:76034**

Nikitina, I. V. (*with* Sazontov, A. G.) The spectral structure of turbulent convection. (Russian) **82k:76040**

Pearson, J. R. A. Wider horizons for fluid mechanics. (*See* **82g:76002**)

Phan-Thien, N. *See* **Antonia, R. A.; et al., 82c:76063**

Phythian, R. The application of renormalised perturbation theory in turbulence and related problems. **82a:76046**

Plohotnikov, K. È. A multiscale model of turbulence. (Russian. English summary) **82m:76038**

Potemkin, V. F. Turbulent boundary layer. **82c:76066**

Pouquet, A. *See* **Garnier, M.; et al., 82j:76053**

Predtečenskiĭ, A. A. *See* **L'vov, V. S., 82h:76027**

Prïimak, V. G. *See* **Levitan, Ju. L.; et al., 82h:76026**

Roždestvenskiĭ, B. L. *See* **Levitan, Ju. L.; et al., 82h:76026**

Sabel'nikov, V. A. Equations for probability distributions of velocity and concentration in turbulent and nonturbulent regions of free flows. (Russian) **82e:76036**

Sadourny, Robert (*with* Basdevant, Claude) Une classe d'opérateurs adaptés à la modélisation de la diffusion turbulente en dimension deux. (English summary) **82i:76049**

Saffman, Philip G. Vortex interactions and coherent structures in turbulence. (*See* **82k:76002**)

Sazontov, A. G. *See* **Nikitina, I. V., 82k:76040**

Ščerbakov, S. A. *See* **Javorskaja, I. M.; et al.,** (*See* **82d:00008**)

Sidorova, V. K. *See* **Levitan, Ju. L.; et al., 82h:76026**

So, Ronald M. C. On the curvature/buoyancy analogy for turbulent shear flows. (German summary) **82k:76041**

Soliman, M. O. (*with* Baker, A. J.) Accuracy and convergence of a finite element algorithm for turbulent boundary layer flow. **82m:76039**

Speziale, Charles G. (*with* Eringen, A. C.) Nonlocal fluid mechanics description of wall turbulence. **82a:76047**

Sulem, Pierre-Louis *See* **Garnier, M.; et al., 82j:76053**

Sykes, R. I. An asymptotic theory of incompressible turbulent boundary-layer flow over a small hump. **82a:76048**

Taniuti, Tosiya *See* **Doi, Masaaki; et al., 82a:76042** *and* **Nagasawa, Kiyoshi; et al., 82a:76045**

Tatsumi, Tomomasa Analytical theories and numerical experiments on two-dimensional turbulence. (*See* **82e:73003**)

Treve, Y. M. *See* **Foiaş, Ciprian, 82j:76052**

Vvedenskaja, N. D. *See* **Javorskaja, I. M.; et al.,** (*See* **82d:00008**)

secondary classifications:

Abe, Kanji (*with* Satofuka, Nobuyuki) Recurrence of initial state of nonlinear ion waves. **(82i:76013)**

Albeverio, Sergio (*with* Høegh-Krohn, Raphael) Some Markov processes and Markov fields in quantum theory, group theory hydrodynamics and C^*-algebras. **(82j:60127)**

Arneodo, A. (*with* Coullet, P.; Tresser, C.) A possible new mechanism for the onset of turbulence. **(82f:58057)**

See also **Coullet, P.; et al., (82a:58036)**

Benjamin, T. Brooke New observations in the Taylor experiment. (*See* **82k:76002**)

Berger, Moshe (*with* Israeli, Moshe; Wolfshtein, M.) Numerical solution of transitional boundary layers. **(82a:76054)**

Bhatnagar, R. K. Flow between coaxial rotating disks: with and without externally applied magnetic field. **(82a:76006)**

Boutros-Ghali, Teymour (*with* Dupree, Thomas H.) Theory of two-point correlation function in a Vlasov plasma. **(82j:76098)**

Britter, R. E. *See* **Hunt, J. C. R.; et al., (82a:76076)**

Busse, F. H. Transition to turbulence in thermal convection with and without rotation. (*See* **82k:76002**)

Chandrasekhar, S. On one-dimensional potential barriers having equal reflexion and transmission coefficients. **(82b:85001)**

Chatwin, P. C. (*with* Sullivan, P. J.) The basic structure of clouds of diffusing contaminant. **(82a:76074)**

Chenciner, Alain ★Équations différentielles. (French) [Differential equations] **(82c:58033)**

Cleja, V. *See* **Dumitrescu, H.; et al., (82c:76044)**

Collet, Pierre (*with* Eckmann, Jean-Pierre) ★Iterated maps on the interval as dynamical systems. **(82j:58078)**

(*with* Eckmann, Jean-Pierre; Koch, Hans) Period doubling bifurcations for families of maps on $\mathbf{R}^n$. **(82i:58052)**

Coullet, P. (*with* Tresser, C.; Arneodo, A.) Transition to turbulence for doubly periodic flows. **(82a:58036)**

See also **Arneodo, A.; et al., (82f:58057)**

Crutchfield, J. (*with* Farmer, D.; Packard, N.; Shaw, Robert; Jones, G.; Donnelly, R. J.) Power spectral analysis of a dynamical system. **(82e:58062)**

Donnelly, R. J. *See* **Crutchfield, J.; et al., (82e:58062)**

Dumitrescu, H. (*with* Cleja, V.; Săvulescu, Ş.t.) A new prediction method of the turbulent boundary layer characteristics near separation. I. Analytical treatment. **(82c:76044)**

Dupree, Thomas H. *See* **Boutros-Ghali, Teymour, (82j:76098)**

Eckmann, Jean-Pierre *See* **Collet, Pierre; et al., (82i:58052)** *and* **(82j:58078)**

Farmer, D. *See* **Crutchfield, J.; et al., (82e:58062)**

Feigenbaum, Mitchell J. Universal behavior in nonlinear systems. **(82h:58031)**

See also **Greene, John M.; et al., (82m:58041)**

Franceschini, Valter (*with* Tebaldi, Claudio) A seven-mode truncation of the plane incompressible Navier-Stokes equations. **(82i:76024)**

(Garrido, Luis) *See* **Systems far from equilibrium, (82g:82004)**

Graham, Robert (*with* Scholz, H. J.) Analytic approximation of the Lorenz attractor by invariant manifolds. **(82b:58054)**

Greene, John M. (*with* MacKay, R. S.; Vivaldi, Franco; Feigenbaum, Mitchell J.) Universal behaviour in families of area-preserving maps. **(82m:58041)**

Guan, De Xiang *See* **Li, Yin Ting, (82i:76091)**

Guleckaja, I. F. (*with* Lisin, F. N.) Complex heat exchange of dispersed turbulent flow in a pipe. (Russian) **(82d:76054)**

Høegh-Krohn, Raphael *See* **Albeverio, Sergio, (82j:60127)**

Howe, M. S. Aerodynamic sound generated by a slotted trailing edge. **(82e:76009)**

Huberman, B. A. (*with* Zisook, Albert B.) Power spectra of strange attractors. **(82a:58037)**

Hunt, J. C. R. (*with* Britter, R. E.; Puttock, J. S.) Mathematical models of dispersion of air pollution around buildings and hills. **(82a:76076)**

Israeli, Moshe *See* **Berger, Moshe; et al., (82a:76054)**

Jones, G. *See* **Crutchfield, J.; et al., (82e:58062)**

Kanašov, A. A. (*with* Rubenčik, A. M.) On turbulence spectra of nonisothermal plasma. (Russian) **(82e:76080)**

Koch, Hans *See* **Collet, Pierre; et al., (82i:58052)**

Koller, A. Anwendung numerischer Lösungen der Navier-Stokes-Gleichungen zur Vermeidung von Wirbeln. (English summary) **(82d:76025)**

Lashinsky, H. Transition to turbulence in a plasma with discrete unstable modes. **(82d:76099)**

Li, Yin Ting (*with* Guan, De Xiang) Motion of particles suspended in stationary turbulent medium at large Reynolds number. **(82i:76091)**

Lisin, F. N. *See* **Guleckaja, I. F., (82d:76054)**

MacKay, R. S. *See* **Greene, John M.; et al., (82m:58041)**

Maldybaeva, È. Ja. Conditions for the stability of the accretion disc around a black hole. (Russian. English summary) **(82m:85001b)**

Manneville, Paul (*with* Pomeau, Y.) Intermittency and the Lorenz model. **(82c:58039)**

Intermittency, self-similarity and $1/f$ spectrum in dissipative dynamical systems. (French summary) **(82e:58065)**

Intermittency in dissipative dynamical systems. **(82d:58045)**

See also **Pomeau, Y., (82c:58042)**

Mason, S. G. *See* **Zuzovsky, M.; et al., (82f:76004)**

May, Robert M. (*with* Oster, George F.) Period doubling and the onset of turbulence: an analytic estimate of the Feigenbaum ratio. **(82g:92036)**

Morioka, N. (*with* Shimizu, Toshihiro) Transition between turbulent and periodic states in the Lorenz model. **(82a:58041)**

Onufriev, A. T. Singularities of turbulent motion in the core of a vortex ring. (Russian) **(82k:76021)**

Orszag, Steven A. *See* **Patera, Anthony T., (82i:76037)**

Oster, George F. *See* **May, Robert M., (82g:92036)**

Packard, N. *See* **Crutchfield, J.; et al., (82e:58062)**

Patera, Anthony T. (*with* Orszag, Steven A.) Transition and turbulence in planar channel flows. **(82i:76037)**

Peters, N. (*with* Williams, F. A.) Coherent structures in turbulent combustion. (*See* **82c:76062**)

Pomeau, Y. Strange attractors. **(82c:58041)**

(*with* Manneville, Paul) Intermittency: a generic phenomenon at the onset of turbulence. **(82c:58042)**

See also **Manneville, Paul, (82c:58039)**

Priel, Z. *See* **Zuzovsky, M.; et al., (82f:76004)**

Puttock, J. S. *See* **Hunt, J. C. R.; et al., (82a:76076)**

Rogers, Joel C. W. Stability, energy conservation and turbulence for water waves. **(82h:35063)**

Rubenčik, A. M. *See* **Kanašov, A. A., (82e:76080)**

Ruelle, David Sensitive dependence on initial condition and turbulent behavior of dynamical systems. **(82b:58048)**

Samarskiĭ, A. A. Numerical methods for solving multidimensional problems of mechanics and physics. (Russian) **(82g:65061)**

Satofuka, Nobuyuki *See* **Abe, Kanji, (82i:76013)**

Săvulescu, Ş.t. *See* **Dumitrescu, H.; et al., (82c:76044)**

Scholz, H. J. *See* **Graham, Robert, (82b:58054)**

Shaw, Robert *See* **Crutchfield, J.; et al., (82e:58062)**

Shimizu, Toshihiro *See* **Morioka, N., (82a:58041)**

Sidorenko, N. V. *See* **Žigulev, V. N.; et al., (82h:76024)**

Sinai, Ja. G. (*with* Vul, E. B.) Discovery of closed orbits of dynamical systems with the use of computers. **(82f:58062)**

Sullivan, P. J. *See* **Chatwin, P. C., (82a:76074)**

Tebaldi, Claudio *See* **Franceschini, Valter, (82i:76024)**
Tresser, C. *See* **Coullet, P.; et al., (82a:58036)** *and* **Arneodo, A.; et al., (82f:58057)**
Tumin, A. M. *See* **Žigulev, V. N.; et al., (82h:76024)**
Vaĭnštein, S. I. A unique approach in the nonlinear theory of a turbulent dynamo. **(82h:76045)**
Vivaldi, Franco *See* **Greene, John M.; et al., (82m:58041)**
Vul, E. B. *See* **Sinaĭ, Ja. G., (82f:58062)**
Williams, F. A. *See* **Peters, N., (*See* 82c:76062)**
Wolfshtein, M. *See* **Berger, Moshe; et al., (82a:76054)**
Žigulev, V. N. (*with* Sidorenko, N. V.; Tumin, A. M.) Generation of waves of instability in a boundary layer by external turbulence. (Russian) **(82h:76024)**
Zisook, Albert B. *See* **Huberman, B. A., (82a:58037)**
Zubarev, D. N. Theory of turbulent transport based on nonequilibrium statistical thermodynamics. (Russian. English summary) **(82j:82039)**
Zuzovsky, M. (*with* Priel, Z.; Mason, S. G.) Effects of rotary Brownian motion in rheological transients of suspensions of spheroids. **(82f:76004)**
Barcelona ★Systems far from equilibrium. **(82g:82004)**
Conference:
Sitges, Statistical Mechanics ★Systems far from equilibrium. **(82g:82004)**
Random systems and dynamical systems ★Random systems and dynamical systems. **(82k:58039)**
Sitges ★Systems far from equilibrium. **(82g:82004)**
Statistical mechanics ★Systems far from equilibrium. **(82g:82004)**
Symposium:
Random Systems and Dynamical Systems ★Random systems and dynamical systems. **(82k:58039)**
Systems far from equilibrium ★Systems far from equilibrium. **(82g:82004)**

76Gxx General aerodynamics and subsonic flows

secondary classifications:

(Eliseev, S. V.) *See* **Asymptotic methods in system dynamics, (82h:76001)**
Hall, R. Cargill Shaping the course of aeronautics, rocketry, and astronautics: Theodore von Kármán, 1881–1963. **(82f:01110)**
Joly, M. Une résolution numérique de l'équation du transsonique. **(82i:76052)**
(von Kármán, Theodore) *See* **Hall, R. Cargill, (82f:01110)**
Asymptotic methods in system dynamics ★Асимптотические методы в динамике систем. (Russian) [Asymptotic methods in system dynamics] **(82h:76001)**
Biography:
von Kármán, Theodore *See* **Hall, R. Cargill, (82f:01110)**
System dynamics ★Асимптотические методы в динамике систем. (Russian) [Asymptotic methods in system dynamics] **(82h:76001)**

76G05 Hodograph methods

76G10 Kármán-Tsien approximation

76G15 Iterative methods

76G20 Free-streamline theory

secondary classifications:

Lifanov, I. K. On the method of discrete vortices. **(82i:76019)**

76G99 None of the above, but in this section

Belocerkovskiĭ, S. M. (*with* Lifanov, I. K.) Some singular integral equations of aerodynamics. (Russian) **82k:76042**
Broderick, John *See* **Smolka, Scott A.; et al., 82c:76070**
Dalabaev, U. (*with* Nuriddinov, M.) Construction of a difference scheme for equations of interpenetrating motions with account taken of lifting force. (Russian) **82c:76067**
Homentcovschi, Dorel Oseen flow of a compressible fluid past a flat plate. **82i:76050**
Korolev, G. L. On the asymptotic theory of flow around the trailing edge of an elliptic profile. (Russian) **82e:76037**
Lifanov, I. K. On the discrete vortex method for a wing of infinite span and the Prandtl equation for a wing of finite span. (Russian) **82c:76068**
See also **Belocerkovskiĭ, S. M., 82k:76042**
Morino, Luigi *See* **Smolka, Scott A.; et al., 82c:76070**
Nuriddinov, M. *See* **Dalabaev, U., 82c:76067**
Peters, Galen R. A computer solution of the three-dimensional Navier-Stokes equations in potential-function/vorticity form. **82c:76069**
Smolka, Scott A. (*with* Broderick, John; Morino, Luigi) Recent developments in the Green's function method for aerodynamics. **82c:76070**
Vorob'ev, N. F. On the solution of the problem of the flow around a wing of finite span in the linear formulation. (Russian) **82a:76049**

secondary classifications:

Colasurdo, Guido *See* **Zannetti, Luca, (82f:76026)**
Gaster, M. On transition to turbulence in boundary layers. (*See* **82k:76002**)
Martynenko, M. D. Motion of a wing of finite span, similar in design to a circular one. (Russian. English summary) **(82e:76010)**
Meister, E. (*with* Sommer, H. J.) Ein algebraisches Verfahren zur Lösung von gemischten Anfangsrandwertproblemen aus der Theorie instationärer Gitterströmungen. (English summary) **(82h:65158)**
Monahov, V. N. (*with* Plotnikov, P. I.) Quasiconformal mappings and problems of hydrodynamics. (Russian) **(82e:76001)**
Plotnikov, P. I. *See* **Monahov, V. N., (82e:76001)**
Prussing, J. E. Stabilization of an unstable linear system by parametric white noise. **(82g:70049)**
Schwartz, Leonard W. A semi-analytic approach to the self-induced motion of vortex sheets. **(82k:76019)**
Sommer, H. J. *See* **Meister, E., (82h:65158)**
Sykes, R. I. An asymptotic theory of incompressible turbulent boundary-layer flow over a small hump. **(82a:76048)**
Tuck, E. O. Application and solution of Cauchy singular integral equations. **(82c:45003)**
Zannetti, Luca (*with* Colasurdo, Guido) Unsteady compressible flow: a computational method consistent with the physical phenomena. **(82f:76026)**

76H05 Transonic flows, limit lines

Akay, H. U. *See* **Ecer, A., 82j:76056**
Baker, Timothy J. Potential flow calculation by the approximate factorisation method. **82j:76055**
Behbahani, D. A necessary condition to the transonic controversy. (*See* **82c:76004**)
Brežnev, A. L. Transonic gas flows in Laval nozzles with logarithmic singularities on limit characteristics. (Russian) **82e:76038**
Brochard, Luigi Le décentrement dans les m.e.f discontinus. **82i:76051**
Eberle, A. Transonic flow computations by finite elements: airfoil optimization and analysis. (*See* **82c:76004**)
Ecer, A. (*with* Akay, H. U.) Investigation of transonic flow in a cascade using the finite element method. **82j:76056**
Fuchs, László A Newton-multigrid method for the solution of nonlinear partial differential equations. **82d:76058**
Geffen, Nima (*with* Yaniv, Sara) Isoparametric characteristic elements for the Tricomi equation. **82c:76071**
Guderley, K. G. Heuristic observations related to the computation of transonic flow fields. (*See* **82c:76004**)
Joly, M. Une résolution numérique de l'équation du transsonique. **82i:76052**
Khosla, P. K. (*with* Rubin, S. G.) Applications of a variational method for mixed differential equations. **82h:76030**
Lobo, M. (*with* Sachdev, P. L.) Some direct numerical approaches to the solution of the singular nonlinear transonic integral equation. **82c:76072**
Manwell, A. R. ★The Tricomi equation with applications to the theory of plane transonic flow. **82e:76039**
Neuberger, John W. A type-independent iterative method for systems of nonlinear partial differential equations: application to the problem of transonic flow. **82d:76059**
Ni, A. L. (*with* Ryžov, O. S.) Transonic flows of a multicomponent relaxing mixture through a Laval nozzle. (Russian) **82d:76060**
Rubin, S. G. *See* **Khosla, P. K., 82h:76030**
Ryžov, O. S. *See* **Ni, A. L., 82d:76060**
Sachdev, P. L. *See* **Lobo, M., 82c:76072**
Strehmel, Karl Näherungsmethoden zur Ermittlung von transsonischen Profilströmungen mit Verdichtungsstössen. **82a:76050**
Yaniv, Sara *See* **Geffen, Nima, 82c:76071**

secondary classifications:

Caradonna, F. X. (*with* Steger, Joseph L.) Implicit potential methods for the solution of transonic rotor flows. **(82a:65064)**
Holst, Terry L. An implicit algorithm for solving the transonic, conservative full-potential equation. **(82a:65081)**
Lar'kin, N. A. Solvability of a boundary value problem for the stationary viscous transonic equation. (Russian) **(82m:35130)**
Ol'šanskiĭ, V. Ju. Two methods for calculating the load on the surface of a slender body executing axisymmetric vibrations in a sonic gas flow. **(82a:73023)**
Steger, Joseph L. *See* **Caradonna, F. X., (82a:65064)**

76Jxx Supersonic flows

76J05 Hodograph methods

Burnat, M. Supersonic nozzles without shocks. (Polish and Russian summaries) **82m:76040**

secondary classifications:

Čubarov, L. B. Some numerical models of long wave propagation in a fluid in the presence of an ice cover. (Russian) **(82c:76022)**
Göller, B. *See* **Krieg, R.; et al., (82h:76005b)**
Hailfinger, G. *See* **Krieg, R., (82h:76005a)** *and* **(82h:76005b)**
Krieg, R. (*with* Hailfinger, G.) Transient, three-dimensional potential flow problems and dynamic response of the surrounding structures. I. Description of the fluid dynamics by a singularity method (computer code SING). **(82h:76005a)**
(*with* Göller, B.; Hailfinger, G.) Transient, three-dimensional potential flow problems and dynamic response of the surrounding structures. II. Simultaneous coupling between fluid and structural dynamics (computer code SING-S). **(82h:76005b)**

76J10 Method of characteristics

Borisov, V. M. (*with* Mihaĭlov, I. E.) Optimization of supersonic parts of three-dimensional nozzles. (Russian) **82j:76057**
Mihaĭlov, I. E. *See* **Borisov, V. M., 82j:76057**

76J99 None of the above, but in this section

Bakker, P. G. (*with* Bannink, W. J.; Reyn, J. W.) Potential flow near conical stagnation points. **82i:76053**

Bannink, W. J. *See* **Bakker, P. G.; et al., 82f:76053**
Čušķin, P. I. *See* **Voskresenskiĭ, G. P., 82k:76043**
Iacob, Caius Validity conditions in linear plane supersonic aerodynamics. (Romanian. French summary) **82e:76040**
Kusakin, S. I. (*with* Pritulo, M. F.) The coordinate-deformation method in the problem of a supersonic gas flow over an airfoil. **82a:76051**
Manuĭlovič, S. V. (*with* Terent'ev, E. D.) Asymptotic solution of the problem of supersonic flow of an ideal gas around a blunt wedge. (Russian) **82f:76019**
Moskvitin, V. N. An inverse problem for the wave equation. (Russian) **82e:76041**
Nikolaev, V. S. Optimal aerodynamically loaded wing in a supersonic flow. (Russian) **82e:76042**
Pritulo, M. F. *See* **Kusakin, S. I., 82a:76051**
Reyn, J. W. *See* **Bakker, P. G.; et al., 82f:76053**
Rusanov, V. V. (*with* Šarakšanè, A. A.) Investigation of a linearized nonstationary model of flow around an infinite wedge. (Russian. English summary) **82g:76023**
Šarakšanè, A. A. *See* **Rusanov, V. V., 82g:76023**
Terent'ev, E. D. *See* **Manuĭlovič, S. V., 82f:76019**
Voskresenskiĭ, G. P. (*with* Čušķin, P. I.) Numerical methods for computation of supersonic flow around bodies at an angle of attack. (Russian. English summary) **82k:76043**

secondary classifications:

Arthur, M. D. (*with* Cercignani, Carlo) Nonexistence of a steady rarefied supersonic flow in a half-space. (Italian summary) **(82e:82106)**
Borisov, A. V. Some properties of an implicit difference scheme. (Russian) **(82e:65091)**
Cercignani, Carlo *See* **Arthur, M. D., (82e:82106)**
Gaponov, S. A. (*with* Maslov, A. A.) ★Развитие возмущений в сжимаемых потоках. (Russian) [Development of perturbations in compressible flows] **(82g:76021)**
Ivanteeva, L. G. (*with* Konovalov, S. I.; Pavlovec, G. A.) Calculation of aerodynamic characteristics of a profile near a baffle for specific values of its geometric parameters. (Russian) **(82b:76009)**
Konovalov, S. I. *See* **Ivanteeva, L. G.; et al., (82b:76009)**
Li, Da Qian On a free boundary problem. (Chinese summary) **(82i:35125)**
Lipatov, I. I. The effect of the form of a porous surface on the propagation of perturbations with intensive distributed injection into a supersonic current. (Russian) **(82f:76036)**
Maslov, A. A. *See* **Gaponov, S. A., (82g:76021)**
Nikol'skiĭ, A. A. Plane vortex gas flows. **(82a:76057)**
Pavlovec, G. A. *See* **Ivanteeva, L. G.; et al., (82b:76009)**
Smith, Randolph G. The Riemann problem in gas dynamics. **(82g:35075)**
Vel'misov, P. A. Asymptotic investigation of nonlinear effects in the problem of unsteady supersonic flow past a profile. **(82i:76059)**
Vorob'ev, N. F. On the solution of the problem of the flow around a wing of finite span in the linear formulation. (Russian) **(82a:76049)**

76K05 Hypersonic flows

Antonova, A. M. (*with* Dzvonik, L. Ĭ.) Investigation of a singular solution for problems of flow around quasi-two-dimensional bodies with various types of boundary conditions on their surface. (Russian. English summary) **82m:76041**
Bogatko, V. I. On the problem of a three-dimensional hypersonic gas flow around a thin airfoil. (Russian) **82g:76024b**
Dzvonik, L. Ĭ. *See* **Antonova, A. M., 82m:76041**
Golubinskiĭ, A. I. (*with* Ščedrin, A. I.) Hypersonic gas flow over a delta wing. **82a:76052**
Korolev, G. L. On the theory of a hypersonic flow around a wing of small extension. (Russian) **82e:76043**
Ščedrin, A. I. *See* **Golubinskiĭ, A. I., 82a:76052**

secondary classifications:

Babenko, K. I. (*with* Ivanova, V. N.; Kosorukov, A. L.; Radvogin, Ju. B.) Supersonic flow around smooth bodies with regard for chemical reactions that are not in equilibrium. (Russian) **(82j:65069)**
Gaponov, S. A. (*with* Maslov, A. A.) ★Развитие возмущений в сжимаемых потоках. (Russian) [Development of perturbations in compressible flows] **(82g:76021)**
Ivanova, V. N. *See* **Babenko, K. I.; et al., (82j:65069)**
Kosorukov, A. L. *See* **Babenko, K. I.; et al., (82j:65069)**
Maslov, A. A. *See* **Gaponov, S. A., (82g:76021)**
Radvogin, Ju. B. *See* **Babenko, K. I.; et al., (82j:65069)**
Ryžov, O. S. Asymptotic methods in fluid dynamics. (Russian) **(82e:76002)**
Srivastava, R. C. *See* **Verma, B. G., (82c:76113)**
Verma, B. G. (*with* Srivastava, R. C.) Behaviour of sonic waves in dissociating gases in the presence of a magnetic field. **(82c:76113)**

76L05 Shock waves and blast waves [See also 73D05.]

Agafonov, V. P. Analytic method of determining the characteristics of a nonequilibrium flow in an entropy layer. (Russian) **82e:76044**
Ambar, Mata *See* **Khare, H. C.; et al., 82c:76074**
Berezin, Ju. A. (*with* Všivkov, V. A.; Krygin, V. D.) Two-dimensional wave processes in a dispersive medium. (Russian) **82f:76020**
Cleja-Ţigoiu, Sanda A note on the Prandtl-Meyer fan. (Romanian. French summary) **82e:76045a**
Cramer, M. S. Focusing of a weak three-dimensional shock wave. **82k:76044**
Damamme, Gilles Mouvement d'une onde de détonation sonique. (English summary) [Movement of a sonic detonation wave] **82k:76045**
Donato, Andrea (*with* Ricca, G.) On the possibility of secondary shocks in a self-similar flow. (Italian. English summary) **82b:76038**
Fujimoto, Y. *See* **Mishkin, E. A., 82i:76056**
Fung, Kee Ying Shock wave formation at a caustic. **82d:76061**
Gasenko, V. G. (*with* Nakorjakov, V. E.; Šreĭber, I. R.) Enhancement of a shock wave in a liquid with gas bubbles. (Russian) **82b:76039**
Griffith, Wayland C. Shock waves. (*See* **82g:76002**)
Huang, Lan Chieh Pseudo-unsteady difference schemes for discontinuous solutions of steady-state, one-dimensional fluid dynamics problems. **82h:76031**
Iacob, Caius On some properties of the Prandtl-Meyer fan. (Romanian. French summary) **82e:76045b**
Il'inskiĭ, N. B. (*with* Jakimov, N. D.) Closure of the contour in an inverse problem of blast ejection. (Russian) **82h:76046**
Imšennik, V. S. Cumulation of converging shock waves with account taken of dissipative processes. (Russian) **82g:76025**
Iskandar, Labib (*with* Jain, Padam Chand) A numerical study of the thickening of shock waves. **82a:76053**
Jain, Padam Chand *See* **Iskandar, Labib, 82a:76053**
Jakimov, N. D. *See* **Il'inskiĭ, N. B., 82h:76046**
Jakovlev, V. Ja. Some numerical results in the problem of the impact of a liquid drop on a solid surface. (Russian) **82c:76073**
Khare, H. C. (*with* Upadhyaya, K. S.; Ambar, Mata) Density strength and differential effects of a stationary hydromagnetic shock wave in a thermally conducting gas. **82c:76074**
Krygin, V. D. *See* **Berezin, Ju. A.; et al., 82f:76020**
Laval, Pierre Schémas de désintégration explicites du second ordre donnant des profils de choc sans oscillation. (English summary) [Explicit second-order splitting up schemes yielding nonoscillating solutions for steady/unsteady shock problems] **82k:76047**
Lazarus, Roger B. Self-similar solutions for converging shocks and collapsing cavities. **82i:76054**
Lerche, I. Mathematical theory of cylindrical isothermal blast waves in a magnetic field. **82i:76055**
Mishkin, E. A. (*with* Fujimoto, Y.) Analysis of a cylindrical imploding shock wave. **82i:76056**
Mishra, Ratan Shanker *See* **Pandey, Kanti, 82f:76021**
Morro, Angelo Oblique interaction of waves with shocks. (German summary) **82k:76048**
Nakorjakov, V. E. *See* **Gasenko, V. G.; et al., 82b:76039**
Pandey, Kanti (*with* Mishra, Ratan Shanker) Gradients behind three-dimensional pseudostationary shock-waves in radiating gases. **82f:76021**
Payne, Fred R. *See* **Wadia, Aspi Rustom, 82c:76076**
Petkov, R. Numerical solution of nonstationary processes in pressure systems by means of fast oscillation integral equations. (Bulgarian. Russian and English summaries) **82j:76058**
Ram, R. Analytical solutions of the problem of violent explosions in a plasma of varying density. (German summary) **82i:76057**
Ricca, G. *See* **Donato, Andrea, 82b:76038**
Rubinovskiĭ, A. V. Application of the method of p-analytic functions for solution of axisymmetric problems of blast ejection theory. (Russian) **82k:76049**
Seleznev, L. I. *See* **Slobodkina, F. A., 82i:76058**
Sharma, V. D. (*with* Shyam, Radhe) Nonequilibrium relaxing gas flow behind three-dimensional unsteady curved shock wave. **82c:76075**
Shyam, Radhe *See* **Sharma, V. D., 82c:76075**
Slobodkina, F. A. (*with* Seleznev, L. I.) On the stability of compression shock in streams of spontaneously condensing vapor. **82i:76058**
Šreĭber, I. R. *See* **Gasenko, V. G.; et al., 82b:76039**
Terent'ev, E. D. On perturbations associated with the final momentum in the problem of strong point explosion. **82j:76059**
Tešukov, V. M. Decay of an arbitrary discontinuity on a curvilinear surface. (Russian) **82h:76040**
Upadhyaya, K. S. *See* **Khare, H. C.; et al., 82c:76074**
Vel'misov, P. A. Asymptotic investigation of nonlinear effects in the problem of unsteady supersonic flow past a profile. **82i:76059**
Všivkov, V. A. *See* **Berezin, Ju. A.; et al., 82f:76020**
Wadia, Aspi Rustom (*with* Payne, Fred R.) Application of the method of integral relations to unsteady fluid flow problems with shocks. **82c:76076**

secondary classifications:

Banerjee, S. N. *See* **Ray, G. Deb; et al., (82e:85002)**
Blohin, A. M. A mixed problem for a three-dimensional system of equations of acoustics with boundary conditions on the shock wave. (Russian) **(82m:76051)**
Bressan, Aldo Thermomechanic shock waves in elastic materials and viscous fluids. (Italian summary) **(82k:73077)**
Brušlinskiĭ, K. V. On the stability of a converging spherical shock wave. (Russian. English summary) **(82e:35016)**
Calia, V. *See* **Marconi, F.; et al., (82m:76065)**
Chakraborty, T. K. *See* **Ray, G. Deb; et al., (82e:85002)**
Flaherty, Joseph E. Explicit difference schemes for wave propagation and impact problems. (*See* **82k:00010**)
Fursenko, A. A. *See* **Voinovič, P. A.; et al., (82h:76033)**
Fusco, Domenico Some remarks on shock waves in fluid dynamics. (Italian. English summary) **(82g:35073)**
Gottlieb, David (*with* Lustman, Liviu; Orszag, Steven A.) Spectral calculations of one-dimensional inviscid compressible flows. **(82m:76002)**
Janenko, N. N. *See* **Vorožcov, E. V., (82d:76069)**
Levin, V. A. (*with* Svalov, A. M.) Propagation of detonation waves. **(82f:35125)**
Lustman, Liviu *See* **Gottlieb, David; et al., (82m:76002)**
Majda, Andrew The existence and stability of multidimensional shock fronts. **(82g:35074)**
Marconi, F. (*with* Rudman, S.; Calia, V.) Numerical study of one-dimensional unsteady particle-laden flows with shocks. **(82m:76065)**
Menon, V. V. *See* **Sharma, V. D.; et al., (82m:85003)**
Mihaĭlovs'kiĭ, V. Ĭ. (*with* Šerkuziev, M.) Infinitesimal bending of first-order surfaces of revolution of positive Gaussian curvature subject to conical sleevelike constraints. (Russian) **(82j:53103)**

Mortell, Michael P. (*with* Seymour, Brian R.) A finite-rate theory of quadratic resonance in a closed tube. **(82m:76056)**
Orszag, Steven A. *See* **Gottlieb, David; et al., (82m:76002)**
Popov, F. D. *See* **Voĭnovič, P. A.; et al., (82k:76033)**
Ray, G. Deb (*with* Chakraborty, T. K.; Banerjee, S. N.) Propagation of axisymmetric relativistic shock waves. **(82e:85002)**
Rudman, S. *See* **Marconi, F.; et al., (82m:76065)**
Rusanov, V. V. (*with* Šarakšanè, A. A.) Investigation of a linearized nonstationary model of flow around an infinite wedge. (Russian. English summary) **(82g:76023)**
Šarakšanè, A. A. *See* **Rusanov, V. V., (82g:76023)**
Šerkuziev, M. *See* **Mihaĭlovs'kiĭ, V. Ĭ., (82j:53103)**
Seymour, Brian R. *See* **Mortell, Michael P., (82m:76056)**
Sharma, V. D. (*with* Shyam, Radhe) Propagation of discontinuities along bicharacteristics in the unsteady flow of a relaxing gas. **(82d:76067)**
(*with* Shyam, Radhe; Menon, V. V.) Behaviour of finite amplitude waves in a radiating gas. (German and Russian summaries) **(82m:85003)**
Shubin, Gregory R. Sharp discontinuity tracking applied to explosion problems. **(82a:65070)**
Shyam, Radhe *See* **Sharma, V. D., (82d:76067)** *and* **(82m:85003)**
Smith, Randolph G. The Riemann problem in gas dynamics. **(82g:35075)**
Svalov, A. M. *See* **Levin, V. A., (82f:35125)**
Voĭnovič, P. A. (*with* Žmakin, A. I.; Popov, F. D.; Fursenko, A. A.) Numerical study of flows of a gas with discontinuities of complex configurations. (Russian) **(82h:76033)**
Vorožcov, E. V. (*with* Janenko, N. N.) On the theory of differential analysers of contact discontinuities in one-dimensional flows. I, II. **(82d:76069)**
Žmakin, A. I. *See* **Voĭnovič, P. A.; et al., (82h:76033)**

76M05 Nonhomentropic flows of compressible fluids

secondary classifications:

Smith, Randolph G. The Riemann problem in gas dynamics. **(82g:35075)**

76Nxx Compressible fluids and gas dynamics, general

secondary classifications:

(Barancev, R. G.) *See* **Aerodynamics of rarefied gases, (82h:76046)**
Godunov, S. K. (*with* Zabrodin, A. V.; Ivanov, M. Ja.; Kraĭko, A. N.; Prokopov, G. P.) ★Résolution numérique des problèmes multidimensionnels de la dynamique des gaz. (French) [Numerical solution of multidimensional problems of gas dynamics] **(82c:76003)**
Ivanov, M. Ja. *See* **Godunov, S. K.; et al., (82c:76003)**
Kraĭko, A. N. *See* **Godunov, S. K.; et al., (82c:76003)**
(Platonov, Valéri) *See* **Godunov, S. K.; et al., (82c:76003)**
Prokopov, G. P. *See* **Godunov, S. K.; et al., (82c:76003)**
Zabrodin, A. V. *See* **Godunov, S. K.; et al., (82c:76003)**
Aerodynamics of rarefied gases ★Аэродинамика разреженных газов. Вып. 10. (Russian) [Aerodynamics of rarefied gases. No. 10] **(82h:76046)**

76N05 Boundary layer theory

Bansal, J. L. On a class of "nonsimilar" solutions of compressible boundary layer equations. **82g:76026**
Berger, Moshe (*with* Israeli, Moshe; Wolfshtein, M.) Numerical solution of transitional boundary layers. **82a:76054**
Crane, L. J. (*with* Siddappa, Sarvamangala; Siddappa, B.) The axisymmetric boundary layer of a compressible fluid on a long thin cylinder. **82a:76055a**
Hantuleva, T. A. A nonlocal model of a boundary layer for finite Knudsen numbers. (Russian) **82j:76060**
Israeli, Moshe *See* **Berger, Moshe; et al., 82a:76054**
Siddappa, B. *See* **Crane, L. J.; et al., 82a:76055a**
Siddappa, Sarvamangala *See* **Crane, L. J.; et al., 82a:76055a**
Wolfshtein, M. *See* **Berger, Moshe; et al., 82a:76054**

76N10 Compressible fluids, general

Beirão da Veiga, Hugo Recent results on the motion of compressible perfect fluids. (Italian. English summary) **82i:76060**
Belov, S. Ja. Solvability "in the large" of a flow problem for Burgers' equations for a compressible fluid. (Russian) **82m:76042**
Blanchard, Doris K. *See* **Cooke, Charlie H., 82c:76077**
Cooke, Charlie H. (*with* Blanchard, Doris K.) A finite element algorithm for the steady, compressible Navier-Stokes equations. **82c:76077**
Dubrovskiĭ, G. V. (*with* Kondratenko, A. V.) Model equations of relaxation gas dynamics taking account of vibration-rotation relaxation. (Russian) **82c:76078**
Galazjuk, V. A. (*with* Gorečko, A. N.) Investigation of nonstationary wave processes in a viscous compressible fluid by the Čebyšev-Laguerre-polynomials method. (Russian. English summary) **82g:76027**
Gorečko, A. N. *See* **Galazjuk, V. A., 82g:76027**
Guo, Ben Yu Résolution numérique de l'équation des fluides compressibles. (English summary) **82a:76056**
Guz', O. M. On the representation of solutions to the linearized Navier-Stokes equations for a moving liquid. (Russian) **82j:76061**
Harada, I. Computation of strongly compressible rotating flows. **82d:76062**
Kažihov, A. V. *See* **Solonnikov, V. A., (*See* 82f:76001)**
Kondratenko, A. V. *See* **Dubrovskiĭ, G. V., 82c:76078**
Mahviladze, G. M. (*with* Ščerbak, S. B.) Numerical method of investigating nonstationary spatial motions of a compressible gas. **82f:76022**
Russo, Remigio Continuous dependence for the viscous compressible fluids in unbounded domains. (Italian summary) **82k:76050**
Ščerbak, S. B. *See* **Mahviladze, G. M., 82f:76022**
Sidorov, O. P. Calculation of flow with variable specific heat around a profile. **82d:76063**
Solonnikov, V. A. (*with* Kažihov, A. V.) Existence theorems for the equations of motion of a compressible viscous fluid. (*See* **82f:76001**)
Stoljarov, E. P. Solution of a linearized inhomogeneous Helmholtz equation describing the propagation of small vortex perturbations in potential flows of an ideal compressible gas. (Russian) **82c:76079**
Distribution of weak vortex and entropy waves in potential flows of a compressible ideal gas. (Russian) **82c:76080**
Valli, Alberto Uniqueness theorems for compressible viscous fluids, especially when the Stokes relation holds. (Italian summary) **82i:76061**
Woods, L. C. On the thermodynamics of nonlinear constitutive relations in gasdynamics. **82c:76081**

secondary classifications:

Ciavaldini, Jean-François (*with* Pogu, Marc; Tournemine, Georges) Étude de problèmes monotones posés dans des ouverts non bornés, estimation de l'erreur de troncature. (English summary) **(82h:49010)**
Gottlieb, David (*with* Lustman, Liviu; Orszag, Steven A.) Spectral calculations of one-dimensional inviscid compressible flows. **(82m:76002)**
Homentcovschi, Dorel Oseen flow of a compressible fluid past a flat plate. **(82i:76050)**
Lustman, Liviu *See* **Gottlieb, David; et al., (82m:76002)**
Orszag, Steven A. *See* **Gottlieb, David; et al., (82m:76002)**
Pogu, Marc *See* **Ciavaldini, Jean-François; et al., (82h:49010)**
Šeluhin, V. V. Existence of periodic solutions of the generalized Burgers system. **(82i:35015)**
Ton, Bui An On the initial-boundary value problem for viscous heat conducting compressible fluids. **(82m:35135)**
Tournemine, Georges *See* **Ciavaldini, Jean-François; et al., (82h:49010)**

76N15 Gas dynamics, general

Abrašin, V. N. Difference schemes of gas dynamics. (Russian) **82j:76062**
Antonov, A. M. (*with* Fung Van Hyong) Calculation of the effect of a vortical layer on the structure of the flow around a porous cone at an angle of attack. (Russian. English summary) **82f:76023**
Aristov, V. V. (*with* Mahmudov, A. A.; Popov, S. P.) Solution of the nonstationary problem of discontinuity evolution in a viscous heat-conducting gas. (Russian) **82i:76062**
Chester, W. Resonant oscillations of a gas in an open-ended tube. **82h:76032**
Dickinson, G. J. (*with* Jones, I. P.) Numerical solutions for the compressible flow in a rapidly rotating cylinder. **82i:76063**
Fan, Mao Qian *See* **Shi, Wei Gang; et al., 82e:76048**
Favorskiĭ, A. P. *See* **Goloviznin, V. M.; et al., 82i:76064**
Flagg, R. C. (*with* Luning, C. D.; Perry, W. L.) Implementation of an iterative technique for the solution of generalized Emden-Fowler eigenproblems. (*See* **82h:65074**)
Fung Van Hyong *See* **Antonov, A. M., 82f:76023**
Gnesin, V. I. (*with* Grodzinskiĭ, V. L.; Sokolovskiĭ, G. A.) Equations of gas dynamics in a noninertial deformable coordinate system. **82f:76024**
Goloviznin, V. M. (*with* Samarskiĭ, A. A.; Favorskiĭ, A. P.) A variational approach to the construction of discrete models in multidimensional hydrodynamics. (Russian) **82i:76064**
(*with* Samarskaja, E. A.) Locally barotropic difference schemes of gas dynamics. (Russian) **82i:76065**
Golubjatnikov, A. N. Integral inequalities in problems of gas dynamics. **82i:76066**
Grodzinskiĭ, V. L. *See* **Gnesin, V. I.; et al., 82f:76024**
Jalamov, Ju. I. (*with* Poddoskin, A. B.; Juškanov, A. A.) On boundary conditions during the flow of a nonuniformly heated gas around a spherical surface of small curvature. (Russian) **82k:76051**
Jones, I. P. *See* **Dickinson, G. J., 82i:76063**
Juškanov, A. A. *See* **Jalamov, Ju. I.; et al., 82k:76051**
Kogan, M. N. Equations of gas dynamics. (Russian) **82f:76025**
Kraĭko, A. N. ★Вариационные задачи газовой динамики. (Russian) [Variational problems of gas dynamics] **82d:76064**
Kučer, N. A. Variational method of investigation of steady-state two-dimensional subcritical gas flows. (Russian) **82m:76043**
Kuropatenko, V. F. Accuracy of the computation of entropy in difference schemes for equations of gas dynamics. (Russian) **82h:76041**
Levanov, E. I. *See* **Volosevič, P. P., 82i:76069**
Luning, C. D. *See* **Flagg, R. C.; et al., (*See* 82h:65074)**
Mahmudov, A. A. *See* **Aristov, V. V.; et al., 82i:76062**
Mattei, Giulio Wave propagation in a gas in the presence of thermal radiation. (Italian. English summary) **82k:76052**
Miles, John W. Waves in a rapidly rotating gas. **82i:76067**
Nikolaev, V. B. Solvability of a mixed problem for equations of one-dimensional axisymmetric motion of a viscous gas. (Russian) **82m:76045**
Nikol'skiĭ, A. A. Plane vortex gas flows. **82a:76057**
Pandey, B. D. *See* **Sharma, Rishi Ram; et al., 82d:76066**
Pavlov, K. B. (*with* Pokrovskiĭ, L. D.; Taranenko, S. N.) Temperature waves in an ideal gas with nonlinear heat conduction. (Russian) **82d:76065**
Perry, W. L. *See* **Flagg, R. C.; et al., (*See* 82h:65074)**
Poddoskin, A. B. *See* **Jalamov, Ju. I.; et al., 82k:76051**
Pokrovskiĭ, L. D. *See* **Pavlov, K. B.; et al., 82d:76065**
Popov, Ju. P. *See* **Popov, S. B., 82m:76046**
Popov, S. B. (*with* Popov, Ju. P.) Peculiarities of the solution of equations of gas dynamics by finite-difference methods. (Russian. English summary) **82m:76046**
Popov, S. P. *See* **Aristov, V. V.; et al., 82i:76062**
Rai, Arisudan *See* **Sharma, Rishi Ram; et al., 82d:76066**

Renno, Pasquale On the theory of dissipative three-dimensional wave motion. **82m:76047**
le Roux, A. Y. Numerical stability for some equations of gas dynamics. **82m:76044**
Samarskaja, E. A. *See* **Goloviznin, V. M., 82i:76065**
Samarskiĭ, A. A. *See* **Goloviznin, V. M.; et al., 82i:76064**
Šeluhin, V. V. Periodic flows of a viscous gas. (Russian) **82e:76046**
Semenov, V. N. Study of the solution of the gas-dynamic Tricomi problem for the Lavrent'ev-Bicadze equation. (Russian. English summary) **82e:76047**
Asymptotics of Fourier coefficients of Tricomi's gas dynamic problem for the Lavrent'ev-Bicadze equation. (Russian. English summary) **82j:76063**
Sharma, Rishi Ram (*with* Rai, Arisudan; Pandey, B. D.) On the global behaviour of sonic waves of arbitrary shape in gas flows with vibrational relaxation. **82d:76066**
Sharma, V. D. (*with* Shyam, Radhe) Propagation of discontinuities along bicharacteristics in the unsteady flow of a relaxing gas. **82d:76067**
Weak discontinuities in a dissociating gas. (German summary) **82c:76082**
Shi, Wei Gang (*with* Fan, Mao Qian; Xu, Da Mao) The equations of motion on S_2 stream surface and the method of their solution. (Chinese. English summary) **82e:76048**
Shyam, Radhe *See* **Sharma, V. D., 82d:76067**
Sobczyk, Krystyna On the accuracy of linearizing the dissipative element in unsteady gas flows through pipelines. **82m:76048**
Sokolovskiĭ, G. A. *See* **Gnesin, V. I.; et al., 82f:76024**
Steger, Joseph L. (*with* Warming, R. F.) Flux vector splitting of the inviscid gasdynamic equations with application to finite-difference methods. **82k:76053**
Steketee, J. A. Unsteady rectilinear gas flows with the velocity distribution of homentropic centered simple waves. (Polish and Russian summaries) **82j:76064**
Sundelius, Björn Reflection of rarefaction wave in one-dimensional gas flow. **82c:76083**
Taranenko, S. N. *See* **Pavlov, K. B.; et al., 82d:76065**
Tešukov, V. M. Centralized waves in three-dimensional gas flows. (Russian) **82a:76058**
Veršinin, S. V. Representation of the solution of equations of a symmetric triple wave in the neighborhood of a region of quiescence. (Russian) **82i:76068**
Volosevič, P. P. (*with* Levanov, E. I.) Some self-similar problems of gas dynamics with account taken of complementary nonlinear effects. (Russian) **82i:76069**
Warming, R. F. *See* **Steger, Joseph L., 82k:76053**
Xu, Da Mao *See* **Shi, Wei Gang; et al., 82e:76048**

secondary classifications:

Calia, V. *See* **Marconi, F.; et al., (82m:76065)**
Čantrak, Svetislav M. Ebene stationäre Strömungen der dissipationsfreien unter dem Einfluss eines transversalen Magnetfeldes befindlichen Gase. **(82a:76089)**
Dem'janov, Ju. A. (*with* Sekrieru, G. V.; Igošin, A. I.; Kireev, V. T.; Pinskiĭ, V. L.) ★Одномерные нестационарные течения реал'ного газа. (Russian) [One-dimensional transient flows of a real gas] **(82c:76002)**
Hsiao, L. The entropy rate admissibility criterion in gas dynamics. **(82f:35123)**
Igošin, A. I. *See* **Dem'janov, Ju. A.; et al., (82c:76002)**
Jalamov, Ju. I. *See* **Pasternak, V. E.; et al., (82g:82029)**
Juškanov, A. A. *See* **Pasternak, V. E.; et al., (82g:82029)**
Kireev, V. T. *See* **Dem'janov, Ju. A.; et al., (82c:76002)**
Kovenja, V. M. The implicit difference scheme for numerical solving the equations of gas dynamics. **(82d:65081)**
Liu, Tai Ping Admissible solutions of hyperbolic conservation laws. **(82i:35116)**
Marconi, F. (*with* Rudman, S.; Calia, V.) Numerical study of one-dimensional unsteady particle-laden flows with shocks. **(82m:76065)**
Pasternak, V. E. (*with* Juškanov, A. A.; Jalamov, Ju. I.) Construction of the Bhatnagar, Gross, and Krook model in the case of moderate density gases. (Russian) **(82g:82029)**
Pearson, Carl E. Dual time scales in a wave problem governed by coupled nonlinear equations. **(82k:76013)**
Pinskiĭ, V. L. *See* **Dem'janov, Ju. A.; et al., (82c:76002)**
Rudman, S. *See* **Marconi, F.; et al., (82m:76065)**
Sekrieru, G. V. *See* **Dem'janov, Ju. A.; et al., (82c:76002)**
Šeluhin, V. V. Bounded, almost-periodic solutions of a viscous gas equation. (Russian) **(82m:35006)**
Sibner, L. M. (*with* Sibner, R. J.) A sub-elliptic estimate for a class of invariantly defined elliptic systems. **(82j:58115)**
Sibner, R. J. *See* **Sibner, L. M., (82j:58115)**
Širira, V. I. Nonlinear refraction of solitons. **(82j:76022)**
Temple, J. Blake Solutions in the large for the nonlinear hyperbolic conservation laws of gas dynamics. **(82i:35117)**
Terent'ev, E. D. On perturbations associated with the final momentum in the problem of strong point explosion. **(82j:76059)**

76N99 None of the above, but in this section

Anderson, John D., Jr. *See* **Griffin, Michael D.; et al., 82a:76062**
Antoncev, S. N. Asymptotic behavior of axially symmetric gas jets. (Russian) **82a:76059**
Barinova, M. F. (*with* Ostrovskiĭ, Ju. K.; Ščukin, E. R.; Jalamov, Ju. I.) On the question of peculiarities of a laminar flow of volatile binary gas mixtures in plane and coaxial channels. (Russian) **82j:76065**
Beirão da Veiga, Hugo On the barotropic motion of compressible perfect fluids. **82i:76070**
Colasurdo, Guido *See* **Zannetti, Luca, 82f:76026**
Cole, Julian D. Limit process expansions and approximate equations. **82a:76060**
Dymenko, S. K. (*with* Kučkin, V. N.) Hydrodynamic reaction to accelerated one-dimensional motion of gas bubbles of variable volume in an unbounded liquid. **82c:76084**
Fursenko, A. A. *See* **Žmakin, A. I., 82a:76064** *and* **Voĭnovič, P. A.; et al., 82h:76033**
Gonor, A. L. (*with* Lihačev, V. N.) One-dimensional nonstationary motions of a liquid. **82h:76042**
Gouin, H. Invariance properties of perfect fluids obtained with variational methods using a Lagrangian representation. **82a:76061**
Griffin, Michael D. (*with* Jones, Everett; Anderson, John D., Jr.) A computational fluid dynamic technique valid at the centerline for nonaxisymmetric problems in cylindrical coordinates. **82a:76062**
Guiraud, Jean-Pierre (*with* Zeytounian, Radyadour Kh.) Rotational compressible inviscid flow with rolled vortex sheets. An analytical algorithm for the computation of the core. **82e:76049**
Jalamov, Ju. I. *See* **Barinova, M. F.; et al., 82j:76065**
Janenko, N. N. *See* **Vorožcov, E. V., 82d:76069**
Jones, Everett *See* **Griffin, Michael D.; et al., 82a:76062**
Kretzschmar, Horst Differenzenmethoden der Hydrodynamik. **82h:76043**
Kubenko, V. D. Motion of a cylindrical body through the surface of a compressible fluid. (Russian. English summary) **82k:76054**
The impact of an axisymmetric body on the surface of a compressible fluid. (Russian. English summary) **82m:76049**
Kučkin, V. N. *See* **Dymenko, S. K., 82c:76084**
Kumar, A. *See* **Verma, B. G., 82c:76086**
Lastman, G. J. (*with* Wentzell, R. A.) Comparison of five models of spherical bubble response in an inviscid compressible liquid. **82h:76044**
(*with* Wentzell, R. A.) Perturbation corrections to the equation of radial motion of a cavitating spherical bubble in an inviscid compressible liquid. **82j:76066**
Lihačev, V. N. *See* **Gonor, A. L., 82h:76042**
Möhring, W. On flows with heat addition in Laval nozzles. (*See* **82c:76004**)
Morton, J. B. *See* **Wood, Houston G., 82a:76063**
Ostrovskiĭ, Ju. K. *See* **Barinova, M. F.; et al., 82j:76065**
Pitts, Joan I. *See* **Smith, Robert E., 82c:76085**
Popov, F. D. *See* **Voĭnovič, P. A.; et al., 82h:76033**
Rusanov, V. V. On the computation of discontinuous multidimensional gas flows. **82j:76067**
Ščukin, E. R. *See* **Barinova, M. F.; et al., 82j:76065**
Shepherd, J. J. The one-dimensional gas-lubricated slider bearing. **82d:76068**
Smith, Robert E. (*with* Pitts, Joan I.) The solution of the three-dimensional viscous-compressible Navier-Stokes equations on a vector computer. **82c:76085**
Solan, A. *See* **Toren, M., 82j:76068**
Tokumaga, Hiroshi Higher order approximation of weak nonlinear waves in a compressible fluid. **82e:76050**
Toren, M. (*with* Solan, A.) Rotating compressible flow over the edge of a finite disk. **82j:76068**
Verma, B. G. (*with* Kumar, A.) On singular surfaces of order one in dissociating gases. **82c:76086**
Voĭnovič, P. A. (*with* Žmakin, A. I.; Popov, F. D.; Fursenko, A. A.) Numerical study of flows of a gas with discontinuities of complex configurations. (Russian) **82h:76033**
Vorožcov, E. V. (*with* Janenko, N. N.) On the theory of differential analysers of contact discontinuities in one-dimensional flows. I, II. **82d:76069**
Wentzell, R. A. *See* **Lastman, G. J., 82h:76044** *and* **82j:76066**
Wood, Houston G. (*with* Morton, J. B.) Onsager's pancake approximation for the fluid dynamics of a gas centrifuge. **82a:76063**
Zannetti, Luca (*with* Colasurdo, Guido) Unsteady compressible flow: a computational method consistent with the physical phenomena. **82f:76026**
Zeytounian, Radyadour Kh. *See* **Guiraud, Jean-Pierre, 82e:76049**
Žmakin, A. I. (*with* Fursenko, A. A.) A monotone difference scheme for direct calculation. (Russian) **82a:76064**
See also **Voĭnovič, P. A.; et al., 82h:76033**

secondary classifications:

Bhowmick, J. B. An exact analytical solution in radiation gas dynamics. **(82d:85007)**
Bogovskiĭ, M. E. Solution of the first boundary value problem for an equation of continuity of an incompressible medium. (Russian) **(82b:35135)**
Bouix, Maurice Propulsion d'un corps à paroi souple active dans un fluide visqueux. (English summary) **(82b:76030)**
Fuentes Martinez, G. J. *See* **Garcia-Colin, Leopoldo S.; et al., (82j:82032)**
García-Colín, Leopoldo S. (*with* Robles-Dominguez, J. A.; Fuentes Martinez, G. J.) Beyond the Navier-Stokes regime in hydrodynamics. **(82j:82032)**
Janenko, N. N. *See* **Kovenja, V. M.; et al., (82g:65060)**
Kil'čevs'kiĭ, M. O. (*with* Šal'da, L. M.) Self-similar motions of a system consisting of "an elastic shell and a liquid". (Russian. English summary) **(82d:73035)**
Kovenja, V. M. (*with* Tarnavskiĭ, G. A.; Janenko, N. N.) Implicit difference scheme for a numerical solution of three-dimensional equations of gas dynamics. (Russian) **(82g:65060)**
Lin, Shao Shiung Traveling wave solutions of a model system for flame propagation. **(82c:80016)**
See also **Malek-Madani, Reza, (82a:35069)**
Malek-Madani, Reza (*with* Lin, Shao Shiung) Solution to the Riemann problem for the equations of gas dynamics in a tube with varying cross section. **(82a:35069)**
Meecham, W. C. Discussion of the pressure-source aerosonic theory and of Doak's criticism. **(82b:76050)**
Nayfeh, Ali Hasan A comparison of perturbation methods for nonlinear hyperbolic waves. **(82f:35131)**
Robles-Dominguez, J. A. *See* **García-Colín, Leopoldo S.; et al., (82j:82032)**
Roe, P. L. Approximate Riemann solvers, parameter vectors, and difference schemes. **(82k:65055)**
Ryžov, O. S. Asymptotic methods in fluid dynamics. (Russian) **(82e:76002)**
Šal'da, L. M. *See* **Kil'čevs'kiĭ, M. O., (82d:73035)**
Šaškin, A. P. Construction of a monotone scheme of the second order of approximation. (Russian) **(82j:76005)**
Seleznev, L. I. *See* **Slobodkina, F. A., (82i:76058)**
Slobodkina, F. A. (*with* Seleznev, L. I.) On the stability of compression shock in streams of spontaneously condensing vapor. **(82i:76058)**
Tarnavskiĭ, G. A. *See* **Kovenja, V. M.; et al., (82g:65060)**
Tuševa, L. A. On the analysis of iteration difference schemes for hyperbolic systems of equations. (Russian) **(82j:65065)**

76P05 Rarefied gas flows, Boltzmann equation [See also 82A05.]

(Barancev, R. G.) *See* **Aerodynamics of rarefied gases, 82b:76046**

van Beijeren, Henk (*with* Dorfman, J. R.) Kinetic theory of hydrodynamic flows. I. The generalized normal solution method and its application to drag on a sphere. **82f:76027a**

(*with* Dorfman, J. R.) Kinetic theory of hydrodynamic flows. II. The drag on a sphere and on a cylinder. **82f:76027b**

Cercignani, Carlo Existence and uniqueness of the distribution function for a Knudsen gas between two parallel plates. (Italian) **82b:76045**

Dang Hong Tiem Écoulement moléculaire libre autour d'un dièdre droit. (German, English and Russian summaries) **82d:76070**

Dorfman, J. R. *See* **van Beijeren, Henk, 82f:76027**

Geinc, A. G. Solvability of a boundary value problem for the nonlinear Boltzmann equation in a bounded domain. (Russian) **82d:76071**

(*with* Maljarenko, V. A.; Maslova, N. B.) Free molecular flow inside a spherical cavity. (Russian) **82e:76051**

Greenberg, William A discrete model Boltzmann equation. **82i:76071**

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Kawashima, Shuichi Global solution of the initial value problem for a discrete velocity model of the Boltzmann equation. **82g:76028**

Lun'kin, Ju. P. (*with* Mymrin, V. F.) Derivation of the equations of a gas suspension on the basis of kinetic theory. (Russian) **82d:76072**

Maljarenko, V. A. *See* **Geinc, A. G.; et al., 82e:76051**

Maslova, N. B. Stationary solutions of the Boltzmann equation and the Knudsen boundary layer. (Russian) **82d:76073**

See also **Geinc, A. G.; et al., 82e:76051**

Mymrin, V. F. *See* **Lun'kin, Ju. P., 82d:76072**

Nagnibeda, E. A. (*with* Rydalevskaja, M. A.) Equations of a nonequilibrium mixture of viscous dissociable gases. (Russian) **82d:76074**

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Rydalevskaja, M. A. *See* **Nagnibeda, E. A., 82d:76074**

Shinbrot, Marvin *See* **Kaniel, Shmuel, 82c:76087**

Siewert, C. E. (*with* Thomas, J. R., Jr.) Strong evaporation into a half space. (German summary) **82k:76055**

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(*with* Yuan, Miao En) Hilbert-Enskog-Chapman expansion in the turbulent kinetic theory of gases. II. **(82h:82025b)**

Cibarov, V. A. *See* **Kravcov, G. M., (82d:82094)**

Dubrovskiĭ, G. V. (*with* Kondratenko, A. V.) Model equations of relaxation gas dynamics taking account of vibration-rotation relaxation. (Russian) **(82c:76078)**

Eder, Otto J. (*with* Lackner, Thomas) Pressure and bulk viscosity in a hard sphere gas. **(82i:82038)**

Eu, Byung Chan Nonlinear transport processes in gases. **(82b:82096)**

Garcia, R. D. M. *See* **Siewert, C. E.; et al., (82c:82114)**

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Kravcov, G. M. (*with* Cibarov, V. A.) Transport phenomena in a concentrated gas suspension. (Russian) **(82d:82094)**

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Makašev, N. K. (*with* Nosik, V. I.) Steady-state Couette flow (with heat transfer) of a gas of Maxwell molecules. (Russian) **(82b:82046)**

Nosik, V. I. *See* **Makašev, N. K., (82b:82046)**

Praestgaard, E. *See* **Hauge, E. H., (82b:82045)**

Reichl, L. E. Translational Brownian motion in a fluid with internal degrees of freedom. **(82k:82027a)**

Rotational Brownian motion in a fluid with internal degrees of freedom. **(82k:82027b)**

Siewert, C. E. (*with* Garcia, R. D. M.; Grandjean, P.) A concise and accurate solution for Poiseuille flow in a plane channel. **(82c:82114)**

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Ueyama, Hiroshi Fluctuating hydrodynamic equations of mixed and of chemically reacting gases. **(82a:82029)**

Voigt, Jürgen The *H*-theorem for Boltzmann type equations. **(82j:82045)**

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Ziff, Robert M. Model Boltzmann equations. **(82b:82047)**

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Arnold, J. M. Unified asymptotic theory of asymmetrical planar waveguides. **82a:76067**

Avilov, K. V. (*with* Mal'cev, N. E.) Calculation of sound fields in the ocean by the parabolic equation method. **82k:76056**

Bahvalov, N. S. Averaging of the process of propagation of short waves in periodic media. (Russian) **82i:76073**

Banerjee, P. P. (*with* Korpel, Adrianus) Stability of acoustic nonlinear dispersive eigenmodes. **82i:76074**

Beissner, K. Exact integral expression for the diffraction loss of a circular piston source. (German and French summaries) **82m:76050**

Blohin, A. M. A mixed problem for a three-dimensional system of equations of acoustics with boundary conditions on the shock wave. (Russian) **82m:76051**

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Breton, J. R. (*with* Middleton, David) General theory of acoustic propagation through arbitrary fluid media. I. Propagation equations, conditions of the medium, and general dynamical solutions. **82e:76053**

Busse, F. H. (*with* Wang, T. G.) Torque generated by orthogonal acoustic waves—theory. **82f:76028**

Butov, P. A. Reflection of a spherical wave from an impedance boundary. **82k:76057**

Colton, David L. Remarks on the inverse scattering problem for low frequency acoustic waves. **82b:76047**

Crighton, D. G. Acoustics as a branch of fluid mechanics. (*See* **82g:76002**)

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Dokunin, A. E. (*with* Kienja, E. N.; Saprykin, V. A.) Questions of the theory of invariant transformations in hydroacoustics. (Russian) **82b:76048**

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(*with* Nicolaides, R. A.) An analysis of mixed finite element approximations for periodic acoustic wave propagation. **82f:76029**

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Geymonat, Giuseppe (*with* Sánchez-Palencia, Enrique) On the vanishing viscosity limit for acoustic phenomena in a bounded region. **82c:76089**

Gorečko, A. N. Application of orthogonal Laguerre polynomials to the solution of nonstationary problems of diffraction by a cylinder and a sphere. (Russian) **82k:76058**

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Hayek, Sabih I. *See* **Naghieh, M., 82b:76051** *and* **Kendig, Robert P., 82k:76060**

Holford, R. L. Elementary source-type solutions of the reduced wave equation. **82m:76053**

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Kingsbury, Dwight L. *See* **Marston, Philip L., 82k:76061**

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Kristensson, Gerhard (*with* Ström, Staffan) The *T*-matrix approach to scattering from buried inhomogeneities. (*See* **82h:78002**)

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Laval, Robert (*with* Labasque, Yvon) Modèle de propagation par petits fonds. (English summary) **82e:76055**

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(*with* Preiser, Stanley) Generalized Adams methods for solving underwater wave propagation problems. **82g:76030**

Liang, Jia Bao The generalized Kirchhoff formula. (Chinese) **82i:76075**

Lloyd, Stuart P. Underwater sound from surface waves according to the Lighthill-Ribner theory. **82d:76078**

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Marston, Philip L. (*with* Kingsbury, Dwight L.) Acoustic scattering from fluid spheres: diffraction and interference near the critical scattering angle. **82k:76061**
Martin, Paul Andrew On the null-field equations for the exterior problems of acoustics. **82e:76056**
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Meecham, W. C. Discussion of the pressure-source aerosonic theory and of Doak's criticism. **82k:76050**
Meyer, Reinhold (*with* Schroeter, Gerhard) The application of differential geometry to ray acoustics in inhomogeneous and moving media. (German and French summaries) **82d:76079**
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Mortell, Michael P. (*with* Seymour, Brian R.) A finite-rate theory of quadratic resonance in a closed tube. **82m:76056**
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Nilsson, Börje (*with* Brander, Olle) The propagation of sound in cylindrical ducts with mean flow and bulk-reacting lining. I. Modes in an infinite duct. **82i:76076a**
(*with* Brander, Olle) The propagation of sound in cylindrical ducts with mean flow and bulk-reacting lining. II. Bifurcated ducts. **82i:76076b**
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Poirée, B. L'équation de l'énergie en acoustique non linéaire. (English and German summaries) **82e:76057**
L'équation de conservation de l'énergie en acoustique non linéaire dans un fluide parfait hétérogène en mouvement unidimensionnel. (English summary) **82d:76080**
L'équation de conservation de l'énergie en acoustique non linéaire dans un fluide parfait hétérogène en mouvement. (English summary) **82f:76030**
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Rienstra, S. W. Sound diffraction at a trailing edge. **82j:76071**
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Scott, J. F. The long time asymptotics of solutions to the generalized Burgers equation. **82b:76052**
Uniform asymptotics for spherical and cylindrical nonlinear acoustic waves generated by a sinusoidal source. **82e:76058**
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Silvia, Manuel T. (*with* Weglein, Arthur B.) Method for obtaining a nearfield inverse scattering solution to the acoustic wave equation. **82d:76081**
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Stumpf, F. B. ★Analytical acoustics. **82i:76077**
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Tučkin, Ju. A. Diffraction of an acoustic wave by two spherical segments. (Russian. English summary) **82g:76033**
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Woodsum, H. C. (*with* Westervelt, P. J.) A general theory for the scattering of sound by sound. **82g:76034**
Zeytounian, Radyadour Kh. (*with* Guiraud, Jean-Pierre) Évolution d'ondes acoustiques dans une enceinte et concept d'incompressibilité. **82j:76072**
Żółtogórski, Bronisław *See* **Dyba, Roman, 82c:76088**
Zvěřev, S. M. Integro-differential equation of scattering and radiation of acoustic waves by elastic shells. (Ukrainian. Russian summary) **82g:76035**
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Acoustic Propagation ★Journées d'Études sur la Propagation Acoustique. (French) [Study Conference on Acoustic Propagation] **82d:76082**
Marseille ★Journées d'Études sur la Propagation Acoustique. (French) [Study Conference on Acoustic Propagation] **82d:76082**

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Abrahams, I. D. Scattering of sound by a heavily loaded finite elastic plate. **(82k:73039)**
Bojarski, Norbert N. Inverse scattering inverse source theory. **(82m:35140)**
Borisov, A. A. (*with* Vahgel't, A. F.; Nakorjakov, V. E.) Propagation of long-wave perturbations of finite amplitude in aerosol media. (Russian) **(82e:76068)**
Chen, Kuang Ho (*with* Yang, Chung Chun) Spectral theory for the acoustic wave equations with generalized Neumann boundary conditions in exterior domain. **(82h:35111)**
Gabov, S. A. Spectrum and bases of eigenfunctions of a problem of acoustic oscillations of rotating fluid. (Russian) **(82k:76076)**
Gartmeier, O. Eine Integralgleichungsmethode für akustische Reflexionsprobleme an lokal gestörten Ebenen. (English summary) **(82i:35045)**
Godin, O. A. On the plane wave reflection from a layered half space. (Russian) **(82h:73032)**
Godunov, S. K. ★Коэффициенты Клебша-Гордана и специальные функции для решения инвариантных уравнений. (Russian) [Clebsch-Gordan coefficients and special functions for the solution of invariant equations] **(82f:22017)**
Hall, Philip (*with* Seminara, G.) Nonlinear oscillations of nonspherical cavitation bubbles in acoustic fields. **(82c:76012)**
Howe, M. S. Aerodynamic sound generated by a slotted trailing edge. **(82e:76009)**
Jakuškin, I. G. Description of turbulence in the Burgers model. **(82k:76037)**
Jessel, Maurice (*with* Shih, Weishu) Une remarque sur la théorie mathématique des absorbeurs actifs. (English summary) **(82e:58095)**
Keller, Joseph B. Some bubble and contact problems. **(82a:76010)**
Leitman, M. J. An integro-differential equation for plane waves propagating into a random fluid: asymptotic behavior. **(82g:45016)**
Mišenkov, G. V. (*with* Samsonov, Ju. P.) Induced vibrations of coaxial viscoelastic cylindrical shells in a fluid. (Russian) **(82e:73050)**
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Nayfeh, Ali Hasan A comparison of perturbation methods for nonlinear hyperbolic waves. **(82f:35131)**
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Podgornyi, A. L. On the analysis of first reflections of sound for curvilinear forms of halls. (Russian) **(82b:51027)**
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Rawlins, A. D. Simultaneous Wiener-Hopf equations. (French summary) **(82c:45012)**
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Seminara, G. *See* **Hall, Philip, (82c:76012)**
Shih, Weishu *See* **Jessel, Maurice, (82e:58095)**
Sozou, C. (*with* Pickering, W. M.) The nonlinear flow field induced by a point force in the presence of a plane wall. **(82i:76027)**
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Vahgel't, A. F. *See* **Borisov, A. A.; et al., (82e:76068)**
Verma, B. G. (*with* Srivastava, R. C.) On singular surfaces of order one in magnetogasdynamics. **(82e:76077)**
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Acoustic scattering from a submerged plate. II. Finite number of reinforcing ribs. **(82c:73021b)**
Yang, Chung Chun *See* **Chen, Kuang Ho, (82h:35111)**

76Rxx Diffusion and convection [See also 60J60.]

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(Haken, Hermann) *See* **Pattern formation by dynamic systems and pattern recognition, (82k:00028)**
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Pattern formation by dynamic systems and pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
Pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
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Synergetics ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

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Degiorgio, Vittorio Laserlike approach to the dynamics of the Rayleigh-Bénard and the Soret-driven instabilities. (*See* **82k:00028**)
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Gollub, J. P. (*with* Benson, S. V.) Phase locking in the oscillations leading to turbulence. (*See* **82k:00028**)
Kononenko, G. N. Analytic and numerical solutions of one- and two-dimensional boundary value problems of convective heat transfer. (Russian) **82h:76034**
Mann-Nachbar, Pauline On a singular perturbation problem arising in chemical separation studies. **82a:76070**
Strada, M. *See* **Comini, G.; et al., (*See* 82g:80001)**
Tauber, Selmo Time dependent solution of a pollution problem. **82b:76053**

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Akinrelere, E. A. Effects of arbitrary Prandtl number on a forced convection flow near laminar separation. **(82a:76027)**
Benderskaja, S. L. (*with* Husid, B. M.; Sul'man, Z. P.) Nonisothermal flow of non-Newtonian fluids in a channel. **(82a:76003)**
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Husid, B. M. *See* **Benderskaja, S. L.; et al., (82a:76003)**
Strampp, W. Invariant group solutions of hydrodynamical equations. **(82i:35011)**
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Busse, F. H. Patterns of convection in plane layers and in spherical shells. (*See* **82k:00028**)
Franchi, Franca On the uniqueness of the solutions of the Boussinesq equations modified on the basis of the constitutive equations by Cattaneo-Fox in an unbounded domain. (Italian. English summary) **82a:76071**
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Jaluria, Y. Natural convection flow in a stratified medium. (*See* **82g:80001**)
Kapustin, V. A. *See* **Grišin, A. M.; et al., 82d:76083**
Kobel'kov, G. M. Solution of the problem of steady-state free convection. (Russian) **82b:76054**
Kuiken, H. K. A "backward" free-convective boundary layer. **82j:76073**
Leonardi, E. (*with* Reizes, J. A.) Natural convection in compressible fluids with variable properties. (*See* **82g:80001**)
Nakamura, Hiroshi (*with* Asako, Yutaka) Heat transfer in a parallelogram shaped enclosure. I. Heat transfer by free convection. **82g:76036**
Nikitin, L. V. (*with* Ryžak, E. I.) Accuracy of the Boussinesq approximation for an incompressible fluid. **82k:76064**
Potsch, K. *See* **Schneider, W., (*See* 82c:76004)**
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Schneider, W. (*with* Potsch, K.) Weak buoyancy in laminar vertical jets. (*See* **82c:76004**)
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Das, K. P. On nonlinear evolution equations of a three-dimensional capillary-gravity wave packet at the interface of two superposed fluids. **(82m:76006)**
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Guščin, V. A. The splitting method for problems of the dynamics of an inhomogeneous viscous incompressible fluid. (Russian) **(82k:76027)**
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Shukla, P. K. *See* **Yu, M. Y.; et al.**, **82j:76101**

Šneĭdman, V. A. *See* **Kac, A. V.; et al.**, **82i:76105**

Sobolev, Ja. M. *See* **Kac, A. V.; et al.**, **82i:76105**

Spatschek, K. H. *See* **Yu, M. Y.; et al.**, **82j:76101**

Spies, G. O. (*with* Hellsten, T. A. K.) Necessary magnetohydrodynamic stability criterion for rotating plasmas. **82a:76095**

Vaclavik, J. *See* **Weibel, E. S.**, **82a:76096**

Verheest, Frank Third-harmonic and subharmonic generation in general media. **82h:76046**

Weibel, E. S. (*with* Vaclavik, J.) Quasilinear theory without the random phase approximation. **82a:76096**

White, Roscoe Beryl *See* **Rechester, A. B.; et al.**, **82d:76101**

Yu, M. Y. (*with* Shukla, P. K.; Spatschek, K. H.) Alfvén wave excitation of the magnetostatic mode. **82j:76101**

Ždanov, V. M. (*with* Jušmanov, P. N.) Heat diffusion and transfer in a multicomponent completely ionized plasma. (Russian) **82d:76102**

Zhang, Gong Qing Remarks on free boundary problems for the flux equations in plasma physics. **82h:76072**

Zhou, Yu Mei (*with* Cai, Shi Dong) Parametric instabilities with well-separated frequencies in magnetized plasma. (Chinese. English summary) **82d:76103**

secondary classifications:

Averbuh, I. Š. *See* **Kovarskiĭ, V. A.; et al.**, **(82f:81098)**

Baranov, S. A. *See* **Kovarskiĭ, V. A.; et al.**, **(82f:81098)**

Berezin, Ju. A. (*with* Višvkov, V. A.) ★Метод частиц в динамике разреженной плазмы. (Russian) [The particle method in the dynamics of a rarified plasma] **(82i:82048)**

(*with* Višvkov, V. A.; Krygin, V. D.) Two-dimensional wave processes in a dispersive medium. (Russian) **(82f:76020)**

Brengle, Thomas A. *See* **Cohen, Bruce I.; et al.**, **(82c:82079)**

Caffarelli, Luis A. (*with* Friedman, Avner) Asymptotic estimates for the plasma problem. **(82b:35048)**

Cohen, Bruce I. (*with* Brengle, Thomas A.; Conley, Davis B.; Freis, Robert P.) An orbit averaged particle code. **(82c:82079)**

Conley, Davis B. *See* **Cohen, Bruce I.; et al.**, **(82c:82079)**

Dodd, Roger K. (*with* Morris, Hedley C.; Eagleton, J.) Perturbation theory for the nearly integrable nonlinear equations associated with a modified Zakharov-Shabat scattering problem. **(82c:35070)**

Eagleton, J. *See* **Dodd, Roger K.; et al.**, **(82c:35070)**

Freis, Robert P. *See* **Cohen, Bruce I.; et al.**, **(82c:82079)**

Friedman, Avner *See* **Caffarelli, Luis A.**, **(82b:35048)**

Georgiou, A. A virial theorem for general relativistic charged fluids. **(82b:83043)**

Gordeyev, A. N. Motions of particles in an oscillating plasma. **(82m:82029)**

Hansen, P. J. (*with* Nicholson, Dwight R.) Cubic turbulence: a model problem. **(82e:76034)**

Imamura, Tsutomu *See* **Nagasawa, Kiyoshi; et al.**, **(82a:76045)**

Izrailev, F. M. Nearly linear mappings and their applications. **(82c:58021)**

Jensen, Roderick V. Functional integral approach to classical statistical dynamics. **(82j:82010)**

Kako, Fujio (*with* Yajima, Nobuo) Interaction of ion-acoustic solitons in two-dimensional space. **(82e:82013)**

Karácsony, J. (*with* Selinger, V.) Dispersion relation for waves in relativistic electron beam-plasma system. **(82d:76104)**

Kovarskiĭ, V. A. (*with* Perel'man, N. F.; Averbuh, I. Š.; Baranov, S. A.; Tordiraŝku, S. S.) ★Неадиабатические переходы в сильном электромагнитном поле. (Russian) [Nonadiabatic transitions in a strong electromagnetic field] **(82f:81098)**

Kriegsmann, Gregory A. (*with* Morawetz, Cathleen Synge) Solving the Helmholtz equation for exterior problems with variable index of refraction. I. **(82b:65097)**

Krygin, V. D. *See* **Berezin, Ju. A.; et al.**, **(82f:76020)**

Levine, Randolph H. *See* **Sakurai, Takashi**, **(82j:85004)**

Linsker, Ralph Integral-equation formulation for drift eigenmodes in cylindrically symmetric systems. **(82j:76094)**

Litvinenko, E. I. *See* **Mahan'kov, V. G.; et al.**, **(82j:76020)**

Lysikov, Ju. I. On the calculation of the dynamics of a charged gas cloud in a magnetic field. (Russian) **(82j:76085)**

Mahan'kov, V. G. (*with* Litvinenko, E. I.; Švačka, A. B.) Numerical investigation of the Kadomtsev-Petviashvili soliton stability. **(82j:76020)**

Morawetz, Cathleen Synge *See* **Kriegsmann, Gregory A.**, **(82b:65097)**

Morris, Hedley C. *See* **Dodd, Roger K.; et al.**, **(82c:35070)**

Nagasawa, Kiyoshi (*with* Imamura, Tsutomu; Taniuti, Tosiya) A Gaussian solution for drift wave turbulence and for Rossby wave turbulence. **(82a:76045)**

Nicholson, Dwight R. *See* **Hansen, P. J.**, **(82e:76034)**

Perel'man, N. F. *See* **Kovarskiĭ, V. A.; et al.**, **(82f:81098)**

Pocobelli, G. Damping of an electron plasma wave with detrapping of the electrons. **(82m:82031)**

Ruggeri, Tommaso On the conservative form of quasilinear hyperbolic systems. The case of ionized gases and relativistic thermohydrodynamics. (Italian. English summary) **(82f:35124)**

Sakurai, Takashi (*with* Levine, Randolph H.) Generation of coronal electric currents due to convective motions on the photosphere. **(82j:85004)**

Selinger, V. *See* **Karácsony, J.**, **(82d:76104)**

Švačka, A. B. *See* **Mahan'kov, V. G.; et al.**, **(82j:76020)**

Taniuti, Tosiya *See* **Nagasawa, Kiyoshi; et al.**, **(82a:76045)**

Tordiraŝku, S. S. *See* **Kovarskiĭ, V. A.; et al.**, **(82f:81098)**

Višvkov, V. A. *See* **Berezin, Ju. A.; et al.**, **(82f:76020)** *and* **(82i:82048)**

Wardrop, M. J. Coupled Langmuir and ion-acoustic solitary waves. **(82d:82065)**

Yajima, Nobuo *See* **Kako, Fujio**, **(82e:82013)**

76Y05 Quantum hydrodynamics and relativistic hydrodynamics [See also 83C55, 85A30.]

Borzov, V. B. Application of noninertial reference frames to solve a relativistic problem of plasma acceleration by an electromagnetic field. (Russian) **82h:76076**

Breuer, Reinhard A. (*with* Ehlers, Jürgen) Propagation of electromagnetic waves through

magnetized plasmas in arbitrary gravitational fields. **82f:76045**

Cabot, M. (*with* Putterman, S.) Renormalized classical nonlinear hydrodynamics, quantum mode coupling and quantum theory of interacting phonons. **82i:76106**

Carini, Giovanni On the determination of wave fronts in the dynamics of an ideal relativistic fluid in adiabatic conditions. (Italian) **82e:76086**

Ehlers, Jürgen *See* **Breuer, Reinhard A., 82f:76045**

Ermolin, E. V. Equations of traveling waves with various ranks in relativistic gas dynamics. (Russian) **82j:76102**

Gariel, J. Rapprochement entre deux formalismes en thermodynamique relativiste des phénomènes irréversibles. (English summary) **82f:76046**

Giambò, Sebastiano Sur les ondes de discontinuités dans un fluide visqueux relativiste. (English summary) [On waves of discontinuities in a relativistic viscous fluid] **82i:76080**

Karácsony, J. (*with* Selinger, V.) Dispersion relation for waves in relativistic electron beam-plasma system. **82d:76104**

Prasad, Gunraj (*with* Sinha, Bipin Behari) Cordes magnétiques (électriques) en magnétohydrodynamique relativiste. (English summary) **82a:76097**

Purcell, A. J. Variational principle for superfluid helium with vorticity. **82g:76049**

Putterman, S. *See* **Cabot, M., 82i:76106**

Ruggeri, Tommaso (*with* Strumia, Alberto) Main field and convex covariant density for quasilinear hyperbolic systems. Relativistic fluid dynamics. **82b:76077**

(*with* Strumia, Alberto) Convex covariant entropy density, symmetric conservative form, and shock waves in relativistic magnetohydrodynamics. **82m:76070**

Selinger, V. *See* **Karácsony, J., 82d:76104**

Shi, Chang Chun An analogy between relativistic hydrodynamics and classical hydrodynamics. (Chinese. English summary) **82b:76047**

Sinha, Bipin Behari *See* **Prasad, Gunraj, 82a:76097**

Strumia, Alberto *See* **Ruggeri, Tommaso, 82b:76077** *and* **82m:76070**

secondary classifications:

Agop, Marcel *See* **Merches, Ioan, (82b:83045)**

Arcidiacono, Giuseppe On the "projective" magnetohydrodynamics. **(82a:83031)**

Carini, Giovanni On the first principle of thermodynamics in the mechanics of classical continua and in relativistic fluid dynamics. (Italian. English summary) **(82f:80001)**

Caviglia, Giacomo (*with* Zordan, Clara) Integrability conditions for the relative velocity gradient in relativistic continuum mechanics. (Italian summary) **(82a:83032)**

Glaviano, Michael C. (*with* Raymond, David J.) Validity of the diffusion approximation in relativistic fluids. **(82c:85002)**

Gravel, Pierre Asymptotic regularizations and shocks in noninductive heat-current-free relativistic fluids. **(82h:83034)**

Hacyan, S. On the hydrodynamics of steady black hole accretion. **(82d:83037)**

Kranyš, Miroslav Relativistic electrodynamics of dissipative elastic media. (French summary) **(82b:83054)**

Lichnerowicz, André Relativity and mathematical physics. (*See* **82b:83002**)

Merches, Ioan (*with* Agop, Marcel) Transport equations in the relativistic hydromagnetics of spin-fluids. **(82b:83045)**

Raymond, David J. *See* **Glaviano, Michael C., (82c:85002)**

Strani, M. Boundary conditions for the relativistic motion of two immiscible fluids. (Italian and Russian summaries) **(82m:83031)**

Tolmačev, V. V. *See* **Zaicev, Ju. N., (82i:81172)**

Zaicev, Ju. N. (*with* Tolmačev, V. V.) Dissipative equations of two-fluid hydrodynamics of superfluid helium. (Russian) **(82i:81172)**

Zordan, Clara *See* **Caviglia, Giacomo, (82a:83032)**

76Zxx Biological fluid mechanics

76Z05 Physiological flows

Amenzade, R. Ju. Waves in a nonuniform tube containing a liquid. (Russian) **82c:76115**

Ferrari, Carlo On a continuum model of blood flow. (*See* **82c:76004**)

Hung, Tin Kan Some computational methods for biofluid mechanics. **82c:76116**

Lin, K. C. *See* **Shen, M. C.; et al., 82b:76078**

McCracken, M. F. Applications of mathematics to problems concerning the performance of heart valves. **82d:76105**

(*with* Peskin, C. S.) A vortex method for blood flow through heart valves. **82c:76117**

Peskin, C. S. *See* **McCracken, M. F., 82c:76117**

Shen, M. C. (*with* Lin, K. C.; Shih, S. M.) Peristaltic transport of a fluid-particle mixture. **82b:76078**

Shih, S. M. *See* **Shen, M. C.; et al., 82b:76078**

secondary classifications:

Alt, Wolfgang Orientation of cells migrating in a chemotactic gradient. **(82i:92005)**

Collins, Richard (*with* van der Werff, Terry J.) ★Mathematical models of the dynamics of the human eye. **(82d:92004)**

Georgiev, Georgi Iv. (*with* Ignat, Margareta) The intrinsic study of the dynamics of micropolar fluids. (Italian) **(82c:76005)**

Haddow, J. B. *See* **Tait, R. J.; et al., (82d:73037)**

Holmes, Mark H. Low frequency asymptotics for a hydroelastic model of the cochlea. **(82h:92015)**

Ignat, Margareta *See* **Georgiev, Georgi Iv., (82c:76005)**

Kapur, J. N. Solution of the conjugate boundary value problem of mass transfer in circular duct dialysers by using Galerkin's method. **(82h:92007)**

Koehl, M. A. R. Feeding at low Reynolds number by copepods. (*See* **82j:92002**)

Kresch, Edward Cross-sectional area of flexible tubes. **(82m:92029)**

Majumdar, S. R. *See* **Ramkissoon, H., (82a:76004)**

Moodie, T. Bryant *See* **Tait, R. J.; et al., (82d:73037)**

Paiva, M. Hypotheses underlying a continuous analysis of gas transport in a lung model. **(82e:92017)**

Pedley, T. J. Physiological fluid mechanics. **(82j:92029)**

Pickering, W. M. *See* **Sozou, C., (82i:76027)**

Ramkissoon, H. (*with* Majumdar, S. R.) Potentials and Green's functions in micropolar fluid theory. (German and Russian summaries) **(82a:76004)**

Regirer, S. A. On the problem of continuous models of suspensions. **(82g:80005)**

Secomb, T. W. Kinematics of close-packed red blood cells in shear flow. **(82i:92011)**

Skalak, Richard Blood rheology. **(82h:92019)**

Sozou, C. (*with* Pickering, W. M.) The nonlinear flow field induced by a point force in the presence of a plane wall. **(82i:76027)**

Tait, R. J. (*with* Moodie, T. Bryant; Haddow, J. B.) Wave propagation in a fluid-filled elastic tube. **(82d:73037)**

Wang, Chang Yi Arbitrary squeezing of fluid from a tube at low squeeze numbers. (German summary) **(82c:76050)**

Weir, G. J. Analysis of Munch theory. **(82h:92020)**

van der Werff, Terry J. *See* **Collins, Richard, (82d:92004)**

Wille, Sven Øivind Pressure and flow in arterial aneurysms simulated in mathematical models. **(82e:92021)**

76Z10 Biopropulsion in water and in air

Blake, J. R. *See* **Liron, Nadav, 82i:76107**

Liron, Nadav (*with* Blake, J. R.) Existence of viscous eddies near boundaries. **82i:76107**

secondary classifications:

Argémi, José (*with* Gola, Maurice; Chagneux, Hélène) Qualitative analysis of a model generating long potential waves in Ba-treated nerve cells. I. Reduced systems. **(82m:92019a)**

(*with* Gola, Maurice; Chagneux, Hélène) Qualitative analysis of a model generating long potential waves in Ba-treated nerve cells. II. Complete system. **(82m:92019b)**

Chagneux, Hélène *See* **Argémi, José; et al., (82m:92019a)** *and* **(82m:92019b)**

Gola, Maurice *See* **Argémi, José; et al., (82m:92019a)** *and* **(82m:92019b)**

Keller, E. F. Assessing the Keller-Segel model: how has it fared? **(82j:92007)**

O'Brien, R. W. The gliding motion of a bacterium: *Flexibacter* strain *BH3*. **(82j:92028)**

76Z99 None of the above, but in this section

Hughes, B. D. (*with* Pailthorpe, B. A.; White, L. R.) The translational and rotational drag on a cylinder moving in a membrane. **82k:76081**

Pailthorpe, B. A. *See* **Hughes, B. D.; et al., 82k:76081**

White, L. R. *See* **Hughes, B. D.; et al., 82k:76081**

secondary classifications:

Blake, J. R. (*with* Fulford, G. R.) Force distribution on a slender body close to an interface. **(82m:76024)**

Borsboom, M. J. A. (*with* Kalker, J. J.; Viergever, M. A.) A geometrically nonlinear model of the cochlea. **(82e:92010)**

Chapman, C. J. (*with* Proctor, M. R. E.) Nonlinear Rayleigh-Bénard convection between poorly conducting boundaries. **(82d:76044)**

Fulford, G. R. *See* **Blake, J. R., (82m:76024)**

Hanai, Sotaro *See* **Niimi, Hideyuki; et al., (82e:76023)**

Homer, Louis D. (*with* Weathersby, Paul K.) The variance of the distribution of traversal times in a capillary bed. **(82b:92013)**

Kalker, J. J. *See* **Borsboom, M. J. A.; et al., (82e:92010)**

Keller, Joseph B. Tendril shape and lichen growth. **(82e:73080)**

Kyner, Walter T. (*with* Rosenberg, Gary A.) Parameter estimation techniques used in the determination of the bulk flow of brain interstitial fluid. **(82j:92026)**

Minamiyama, Motomu *See* **Niimi, Hideyuki; et al., (82e:76023)**

Niimi, Hideyuki (*with* Minamiyama, Motomu; Hanai, Sotaro) Steady axisymmetrical stagnation-point flow impinging obliquely on a wall. **(82e:76023)**

Proctor, M. R. E. *See* **Chapman, C. J., (82d:76044)**

Rosenberg, Gary A. *See* **Kyner, Walter T., (82j:92026)**

Viergever, M. A. *See* **Borsboom, M. J. A.; et al., (82e:92010)**

Weathersby, Paul K. *See* **Homer, Louis D., (82b:92013)**

78–XX OPTICS, ELECTROMAGNETIC THEORY {For quantum optics, see 81K05.}

78–01 Elementary exposition, textbooks

Moon, Parry (*with* Spencer, Domina Eberle) ★The photic field. **82h:78001**

Spencer, Domina Eberle *See* **Moon, Parry, 82h:78001**

secondary classifications:

Reed, G. A. L. *See* **Sander, K. F., (82c:78014)**

Sander, K. F. (*with* Reed, G. A. L.) ★Transmission and propagation of electromagnetic waves. **(82c:78014)**

78–02 Advanced exposition (research surveys, monographs, etc.)

Brown, John *See* **Clarke, R. H., 82c:78001**

Clarke, R. H. (*with* Brown, John) ★Diffraction theory and antennas. **82c:78001**

Kravcov, Ju. A. (*with* Orlov, Ju. I.) ★Геометрическая оптика неоднородных сред. (Russian) [Geometric optics of inhomogeneous media] **82d:78001**

Orlov, Ju. I. *See* **Kravcov, Ju. A., 82d:78001**

(Petit, Roger) *See* **Electromagnetic theory of gratings, 82a:78001**
Electromagnetic theory of gratings ★Electromagnetic theory of gratings. **82a:78001**
Gratings ★Electromagnetic theory of gratings. **82a:78001**

secondary classifications:

Babič, V. M. (*with* Kirpičnikova, N. Ja.) ★The boundary-layer method in diffraction problems. **(82b:35013)**
Blakemore, Carroll F. Modern mathematical techniques in theoretical physics. **(82c:00013)**
Boerner, Wolfgang-M. Polarization utilization in electromagnetic inverse scattering. **(82h:78012)**
(Carter, S. R.) *See* **Poston, Tim; et al., (82i:58019)**
(Černavskiĭ, A. V.) *See* **Poston, Tim; et al., (82i:58019)**
Kirpičnikova, N. Ja. *See* **Babič, V. M., (82b:35013)**
(Kuester, Edward F.) *See* **Babič, V. M.; et al., (82b:35013)**
(Olsen, D. R.) *See* **Poston, Tim; et al., (82i:58019)**
Pian, Theodore H. H. (*with* Tong, Pin) Reissner's principle in finite element formulations. **(82c:73059)**
Poston, Tim (*with* Stewart, Ian) ★Теория катастроф и ее приложения. (Russian) [Catastrophe theory and its applications] **(82i:58019)**
(Rockwood, A.) *See* **Poston, Tim; et al., (82i:58019)**
Sánchez-Palencia, Enrique ★Nonhomogeneous media and vibration theory. **(82j:35010)**
Stewart, Ian *See* **Poston, Tim, (82i:58019)**
Tong, Pin *See* **Pian, Theodore H. H., (82c:73059)**

78–03 Historical (must also be assigned at least one classification number from Section 01)

Maison, Adam Critical remarks on chemical electrodynamics and the theory of solutions. (Polish. English, French, German and Russian summaries) **82m:78001**
Pogrebysskaja, E. I. ★Дисперсия света. (Russian) [Dispersion of light] **82a:78002**

secondary classifications:

(Alihan'jan, A. I.) *See* **Bessarab, M. Ja., (82c:01045)**
(Bartholinus, Erasmus) *See* **Cuvelier, Pierre, (82f:01180)**
Bessarab, M. Ja. ★Ландау. (Russian) [Landau] **(82c:01045)**
(Bessel, Friedrich Wilhelm) *See* **Gauß, Carl Friedrich, (82j:01076)**
(Boelmans, Wilhelm) *See* **Ziggelaar, August, (82e:01047)**
(Bos, H. J. M.) *See* **Studies on Christiaan Huygens, (82m:01036)**
Chappert, André Lettres nouvelles de la correspondance de Fresnel. **(82f:01042)**
À propos de l'*Essai autobiographique* de Thomas Young. **(82h:01027)**
Cullwick, E. G. Einstein and special relativity. Some inconsistencies in his electrodynamics. **(82j:83002)**
Cuvelier, Pierre Les *Experimenta crystalli Islandici disdiaclastici* d'Erasme Bartholin. (English summary) **(82f:01180)**
Domb, C. James Clerk Maxwell in London: 1860–1865. **(82g:01024)**
(Einstein, Albert) *See* **Cullwick, E. G., (82j:83002)**
Focke, Joachim Eikonal- und Bildfehlertheorie. **(82f:01045)**
(Fresnel, Augustin) *See* **Chappert, André, (82f:01042)**
Gauß, Carl Friedrich ★Werke. Ergänzungsreihe. Band I. (German) [Collected works. Supplementary series. Vol. I] **(82j:01076)**
Gooding, David Metaphysics versus measurement: the conversion and conservation of force in Faraday's physics. **(82f:01047)**
(Huygens, Christiaan) *See* **Studies on Christiaan Huygens, (82m:01036)**
Jones, R. V. James Clerk Maxwell. (Russian. English summary) **(82h:01058)**
Karcev, V. P. The Mach-Boltzmann controversy and Maxwell's views on physical reality. **(82m:01045)**
Kipnis, N. Š. (*with* Pogrebysskaja, E. I.) Two problems in physical optics during the late 18th and early 19th centuries. (Russian) **(82j:01039)**
(Landau, L. D.) *See* **Bessarab, M. Ja., (82c:01045)**
(Maxwell, James Clerk) *See* **Polák, Josef, (82f:01129); Domb, C., (82g:01024)** *and* **Jones, R. V., (82h:01058)**
Miller, Arthur I. On some other approaches to electrodynamics in 1905. (*See* **82d:83002**) Unipolar induction: a case study of the interaction between science and technology. **(82c:01037)**
(Newton, Isaac) *See* **Pogrebysskaja, E. I., (82j:01036)**
Pogrebysskaja, E. I. ★Оптика Ньютона. (Russian) [Newtonian optics] **(82j:01036)**
See also **Kipnis, N. Š., (82j:01039)**
Polák, Josef On the 100th anniversary of the death of James Clerk Maxwell. (Czech) **(82f:01129)**
(Rudwick, M. J. S.) *See* **Studies on Christiaan Huygens, (82m:01036)**
(Snelders, H. A. M.) *See* **Studies on Christiaan Huygens, (82m:01036)**
(Starostin, B. A.) *See* **Jones, R. V., (82h:01058)**
(Visser, R. P. W.) *See* **Studies on Christiaan Huygens, (82m:01036)**
(Young, Thomas) *See* **Chappert, André, (82h:01027)**
Ziggelaar, August The sine law of refraction derived from the principle of Fermat—prior to Fermat? The theses of Wilhelm Boelmans S. J. in 1634. **(82e:01047)**
Amsterdam ★Studies on Christiaan Huygens. **(82m:01036)**
Anniversary:
Death of Maxwell, James Clerk *See* **Polák, Josef, (82f:01129)**
Biography:
Bartholinus, Erasmus *See* **Cuvelier, Pierre, (82f:01180)**
Landau, L. D. *See* **Bessarab, M. Ja., (82c:01045)**
Maxwell, James Clerk *See* **Polák, Josef, (82f:01129); Domb, C., (82g:01024)** *and* **Jones, R. V., (82h:01058)**
Newton, Isaac *See* **Pogrebysskaja, E. I., (82j:01036)**
Correspondence:
Fresnel, Augustin *See* **Chappert, André, (82f:01042)**
Correspondence: (*continued*)
Gauss, Carl Friedrich–Bessel, Friedrich Wilhelm *See* **Gauß, Carl Friedrich, (82j:01076)**
Studies on Christiaan Huygens ★Studies on Christiaan Huygens. **(82m:01036)**
Symposium:
Life and Work of Christiaan Huygens ★Studies on Christiaan Huygens. **(82m:01036)**

78–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Balchin, M. J. (*with* Davidson, J. A. M.) Numerical method for calculating magnetic-flux and eddy-current distributions in three dimensions. **(82h:78003)**
Davidson, J. A. M. *See* **Balchin, M. J., (82h:78003)**

78–05 Experimental papers

78–06 Proceedings, conferences, etc.

Baum, Carl E. (*with* Singaraju, B. K.) The singularity and eigenmode expansion methods with application to equivalent circuits and related topics. (*See* **82h:78002**)
(Herrera, John C.) *See* **Nonlinear dynamics and the beam-beam interaction, 82g:78001**
(Month, Melvin) *See* **Nonlinear dynamics and the beam-beam interaction, 82g:78001**
Singaraju, B. K. *See* **Baum, Carl E., (*See* 82h:78002)**
(Varadan, Vasundara V.) *See* **Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach, 82h:78002**
(Varadan, Vijay K.) *See* **Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach, 82h:78002**
Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **82h:78002**
Brookhaven National Laboratory, N. Y. ★Nonlinear dynamics and the beam-beam interaction. **82g:78001**
Columbus, Ohio ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **82h:78002**
Nonlinear dynamics and the beam-beam interaction ★Nonlinear dynamics and the beam-beam interaction. **82g:78001**
Symposium:
Acoustic, Electromagnetic and Elastic Wave Scattering—Focus on the *T*-Matrix Approach ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **82h:78002**
Nonlinear Dynamics and the Beam-Beam Interaction ★Nonlinear dynamics and the beam-beam interaction. **82g:78001**
Wave scattering ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **82h:78002**

secondary classifications:

(Banerjee, P. K.) *See* **Developments in boundary element methods, (82f:65005)**
(Butterfield, R.) *See* **Developments in boundary element methods, (82f:65005)**
Boundary element methods ★Developments in boundary element methods. 1. **(82f:65005)**
Developments in boundary element methods ★Developments in boundary element methods. 1. **(82f:65005)**

78A02 Foundations

secondary classifications:

Féat, G. *See* **Hope, S. A.; et al., (82k:82022)**
Hope, S. A. (*with* Féat, G.; Landsberg, P. T.) Higher-order Einstein relations for nonlinear charge transport. **(82k:82022)**
Landsberg, P. T. *See* **Hope, S. A.; et al., (82k:82022)**

78A05 Geometric optics

Alber, Hans-Dieter Justification of geometrical optics for nonconvex obstacles. **82g:78002**
Bacry, H. (*with* Cadilhac, M.) Metaplectic group and Fourier optics. **82d:78002**
Brickell, F. A mapping problem in geometrical optics. **82d:78003**
Cadilhac, M. *See* **Bacry, H., 82d:78002**
Cuche, Denis *See* **Schumann, Walter, 82m:78002**
Henyey, Frank S. Improved ray description of wave equations. **82d:78004**
Jakuškin, I. G. Quasigeometrical-optics approximation for intensity fluctuations of a light wave in a randomly inhomogeneous medium. **82a:78003**
Schumann, Walter (*with* Cuche, Denis) Deformation of a holographic image in space. **82m:78002**
Sudarshan, E. C. G. Pencils of rays in wave optics. **82h:78001**
Tape, Walter Analytic foundations of halo theory. **82h:78002**

secondary classifications:

Bernhardt, Jean La polémique de Hobbes contre la *Dioptrique* de Descartes dans le *Tractatus opticus II* (1644). **(82c:01018)**
Bruce, J. W. On contact of hypersurfaces. **(82c:58023)**
Buchwald, Jed Z. Experimental investigations of double refraction from Huygens to Malus. **(82c:01023)**
Hendry, John Newton's theory of colour. **(82c:01021)**
Hestanov, R. H. Short-wave asymptotic form of the problem of diffraction on the open end of a waveguide with a flange. **(82a:78014)**
Kireĭtov, V. R. On some properties of photometric values on a Riemannian manifold. (Russian) **(82f:53078)**

Kravcov, Ju. A. (*with* Orlov, Ju. I.) ★Геометрическая оптика неоднородных сред. (Russian) [Geometric optics of inhomogeneous media] **(82d:78001)**
Lebeau, G. Non holonomie dans un problème de diffraction. **(82f:35031)**
(Newton, Isaac) *See* **Hendry, John, (82c:01021)**
Orlov, Ju. I. *See* **Kravcov, Ju. A., (82d:78001)**
Taylor, Michael E. ★Pseudodifferential operators. **(82i:35172)**

78A10 Physical optics

Alvarez-Estrada, R. F. (*with* Calvo, M. L.) Inhomogeneous dielectric slabs with analytic frequency-dependent permittivities. (French and German summaries) **82i:78001**
Bastiaans, Martin J. The Wigner distribution function of partially coherent light. (French and German summaries) **82i:78002**
Bertero, M. (*with* Dovi, V.) Regularized and positive-constrained inverse methods in the problem of object restoration. (French and German summaries) **82m:78003**
Boerner, Wolfgang-M. (*with* Ho, Chuk Min) Analysis of physical optics far field inverse scattering for the limited data case using Radon theory and polarization information. **82j:78001**
Buldyrev, V. S. (*with* Grikurov, V. È.; Salikov, S. P.) Line-of-sight horizons and boundaries of applicability of the method of normal waves in the presence of superrefraction. **82g:78003**
Calvo, M. L. *See* **Alvarez-Estrada, R. F., 82i:78001**
Cesarina Salvatori, M. *See* **Mattioli, Nuvoletta, 82k:78001**
Dovi, V. *See* **Bertero, M., 82m:78003**
(Frieden, B. Roy) *See* **Computer in optical research, 82d:78007**
Gilliam, David S. Eigenfunction expansions for the equations of crystal optics in a half-space. **82h:78003**
Grikurov, V. È. *See* **Buldyrev, V. S.; et al., 82g:78003**
Harthong, Jacques Le moiré. **82i:78003**
Ho, Chuk Min *See* **Boerner, Wolfgang-M., 82j:78001**
Huggins, B. D. *See* **Vernon, R. J., 82g:78004**
Manenkov, A. B. Irregular magneto-optical waveguides. **82i:78004**
Martinez-Herrero, R. Object reconstruction for partially polarized quasimonochromatic illumination. **82i:78005**
Mattioli, Nuvoletta (*with* Salvatori, M. Cesarina) A theorem of existence and uniqueness in nonlinear dispersive optics. (Italian. English summary) **82k:78001**
Miler, Miroslav Theoretical study of thin off-axis hologram. **82d:78005**
Nazarathy, Moshe (*with* Shamir, Joseph) Wavelength variation in Fourier optics and holography described by operator algebra. **82i:78006**
(*with* Shamir, Joseph) Holography described by operator algebra. **82d:78006**
Powers, S. R. *See* **Sharma, S. K.; et al., 82m:78004**
Rešetin, E. F. The method of 4×4 ray matrices in paraxial optics. (Russian) **82c:78002**
Salikov, S. P. *See* **Buldyrev, V. S.; et al., 82g:78003**
Shamir, Joseph *See* **Nazarathy, Moshe, 82d:78006** *and* **82i:78006**
Sharma, S. K. (*with* Powers, S. R.; Somerford, D. J.) Investigation of domains of validity of approximation methods in forward light scattering from long cylinders. **82m:78004**
Somerford, D. J. *See* **Sharma, S. K.; et al., 82m:78004**
Vernon, R. J. (*with* Huggins, B. D.) Extension of the Jones matrix formalism to reflection problems and magnetic materials. **82g:78004**
Computer in optical research ★The computer in optical research. **82d:78007**
Optical research ★The computer in optical research. **82d:78007**

secondary classifications:

Cahana, D. *See* **Stark, Henry; et al., (82e:94012)**
Fleming, G. N. *See* **Gorman, Arthur; et al., (82i:58018)**
Gibbon, John (*with* James, I. N.; Moroz, Irene M.) The sine-Gordon equation as a model for a rapidly rotating baroclinic fluid. **(82h:76018)**
Gorman, Arthur (*with* Wells, Robert; Fleming, G. N.) Wave propagation and Thom's theorem. **(82i:58018)**
James, I. N. *See* **Gibbon, John; et al., (82h:76018)**
Kumagai, Nobuaki *See* **Morita, Nagayoshi, (82h:78024)**
Lawton, Wayne Uniqueness results for the phase-retrieval problem for radial functions. **(82m:94010)**
Morita, Nagayoshi (*with* Kumagai, Nobuaki) The expansion of cylindrical fiber modes in a spherical coordinate. **(82h:78024)**
Moroz, Irene M. *See* **Gibbon, John; et al., (82h:76018)**
Stark, Henry (*with* Cahana, D.; Webb, Heywood E., Jr.) Restoration of arbitrary finite-energy optical objects from limited spatial and spectral information. **(82e:94012)**
Stewart, Ian Applications of catastrophe theory to the physical sciences. **(82j:58025)**
Ujihara, Kikuo Theory of an arbitrarily stratified optical cavity with output coupling. **(82g:78025)**
Webb, Heywood E., Jr. *See* **Stark, Henry; et al., (82e:94012)**
Wells, Robert *See* **Gorman, Arthur; et al., (82i:58018)**
Wright, F. J. Singularities of plane curves which occur as singular sections of the cuspoid catastrophes. **(82j:58027)**

78A15 Electron optics

78A20 Space charge waves

Dikarev, V. A. Synthesis of nonuniform line with losses. **82a:78004**

secondary classifications:

Feldman, W. C. *See* **Gary, S. Peter, (82f:76040)**
Gary, S. Peter (*with* Feldman, W. C.) A second-order theory for $k \parallel B_0$ electromagnetic instabilities. **(82f:76040)**
Imamura, Tsutomu *See* **Nagasawa, Kiyoshi; et al., (82a:76045)**
Nagasawa, Kiyoshi (*with* Imamura, Tsutomu; Taniuti, Tosiya) A Gaussian solution for drift wave turbulence and for Rossby wave turbulence. **(82a:76045)**
Taniuti, Tosiya *See* **Nagasawa, Kiyoshi; et al., (82a:76045)**

78A25 Electromagnetic theory, general

Anderson, Norman (*with* Arthurs, Arnold Magowan) Variational principles for Maxwell's equations. II. **82k:78002**
Arthurs, Arnold Magowan *See* **Anderson, Norman, 82k:78002**
Balchin, M. J. (*with* Davidson, J. A. M.) Numerical method for calculating magnetic-flux and eddy-current distributions in three dimensions. **82b:78003**
Banerjee, R. S. *See* **Roy Chowdhury, A.; et al., 82f:78001**
Barut, Asim O. On the dynamical group of the charge-monopole system. **82i:78007**
Bassanini, Piero (*with* Cesarina Salvatori, M.) A theorem of existence and uniqueness in nonlinear optics. (Italian summary) **82c:78003**
Bossavit, Alain On the numerical analysis of eddy-current problems. **82m:78005**
Campolattaro, A. A. New spinor representation of Maxwell's equations. I. Generalities. **82c:78004a**
New spinor representation of Maxwell's equations. II. Algebraic properties. **82c:78004b**
Čepilko, N. M. *See* **Striževskiĭ, V. L., 82m:78008**
Cesarina Salvatori, M. *See* **Bassanini, Piero, 82c:78003**
Cole, E. A. B. New electromagnetic fields in six-dimensional special relativity. (Italian and Russian summaries) **82d:78008**
Costen, Robert C. Jump conditions for fields that have infinite, integrable singularities at an interface. **82h:78004**
Davidson, J. A. M. *See* **Balchin, M. J., 82b:78003**
Edelmann, H. J. C. Maxwell's geometric mean distances. (German summary) **82h:78005**
Fante, Ronald L. Relationship between radiative-transport theory and Maxwell's equations in dielectric media. **82c:78005**
Favorskiĭ, A. P. *See* **Koršija, T. K.; et al., 82a:78005**
Fel'd, Ja. N. A mixed boundary value problem of electrodynamics. (Russian) **82f:78002**
Frahm, Charles P. A multipole formalism for material media. **82e:78001**
Gindikin, S. G. Twistor representation of the solutions of Maxwell's system. (Russian) **82f:78003**
Glinskiĭ, G. F. Nonlinear electrodynamics and anisotropic space-time. (Russian) **82h:78004**
Hussin, V. Symmetry groups of electromagnetic potentials and compensating gauge transformations. **82m:78006**
Ionescu-Pallas, Nicolae (*with* Sofonea, Liviu) Physical frames and geometries. (*See* **82h:53003**)
Koršija, T. K. (*with* Tiškin, V. F.; Favorskiĭ, A. P.; Šaškov, M. Ju.) Variational-flux difference schemes for the calculation of magnetic field diffusion. (Russian) **82a:78005**
Kriegsmann, Gregory A. (*with* Morawetz, Cathleen Synge) Computations with the nonlinear Helmholtz equation. **82h:78006**
Kyrala, A. Violations of energy conservation and action uniqueness as sources for mass-energy waves. **82i:78008**
Kyriakopoulos, E. Conformal invariance of Maxwell's equations with magnetic charges. **82a:78006**
Laserra, Ettore The energy criterion for a dissipative electromagnetic system. (Italian. English summary) **82d:78009**
Milani, Albert On a singular perturbation problem for the Maxwell equations in a multiply connected domain. **82k:78003**
Morawetz, Cathleen Synge *See* **Kriegsmann, Gregory A., 82h:78006**
Nalesso, G. F. (*with* Stella, Attilio) Magnetic field diffusion through infinite conducting media. **82c:78006**
Neittaanmäki, Pekka (*with* Saranen, Jukka) Finite element approximation of electromagnetic fields in three-dimensional space. **82b:78005**
(*with* Picard, Rainer) Error estimates for the finite element approximation to a Maxwell-type boundary value problem. **82b:78006**
Obădeanu, V. Formes différentielles extérieures utilisées en électrodynamique. (Romanian summary) (*See* **82h:53003**)
Sur les équations de Maxwell en dynamique du point matériel. **82h:78007**
Páez, Jorge On the invariance of the Maxwell equations. (Spanish summary) **82b:78007**
Palumbo, Annunziata Wave propagation and breaking in electrically polarizable media. (German summary) **82j:78002**
Paškovskiĭ, V. I. A new method for calculating electromagnetic fields in fine-grained and continuous media. (Russian) **82g:78005**
Pavlov, V. I. An approach to the description of small-scale self-focusing. (Russian) **82d:78010**
Picard, Rainer *See* **Neittaanmäki, Pekka, 82b:78006**
Poltz, Juliusz Analysis of a quasistationary electromagnetic field by iteration methods. (Polish. English and Russian summaries) **82a:78007**
Ponath, H.-E. (*with* Schubert, M.) The time-space-dependent power spectrum for the description of nonstationary and inhomogeneous electromagnetic fields. (German summary) **82d:78011**
Radzin's, G. A. On equations for determining the induction of a stationary plane-parallel magnetic field. (Russian) **82m:78007**
Rodrigo, Enrico A. Geometry dependence of Casimir energy and scalar Green's functions. **82i:78009**
Rosenblum, Arnold The use of hyperfunctions for radiation reaction calculations in classical field theories. **82g:78006**
Roy, T. *See* **Roy Chowdhury, A.; et al., 82f:78001**
Roy Chowdhury, A. (*with* Banerjee, R. S.; Roy, T.) A soliton perturbation scheme for 3×3 inverse scattering formalism with application to the problem of self-focussing of polarised wave in a nonlinear medium. **82f:78001**
Sabbi, Sandra On a reciprocity theorem in electromagnetism. (Italian) **82b:78008**
Saranen, Jukka Some remarks on the convergence of the horizontal line method for Maxwell's equations. **82a:78008**
See also **Neittaanmäki, Pekka, 82b:78005**

Šaškov, M. Ju. *See* **Koršija, T. K.; et al., 82a:78005**
Schubert, M. *See* **Ponath, H.-E., 82d:78011**
Silvester, P. P. The fundamental equations of electric and magnetic fields. **82b:78009**
Singh, A. Quaternionic form of the electromagnetic-current equations with magnetic monopoles. **82i:78010**
Sofonea, Liviu *See* **Ionescu-Pallas, Nicolae,** (*See* **82h:53003**)
Sone, Yoshio A uniformly convergent expression of the magnetic field induced by a helical coil. **82f:78004**
Sprössig, Wolfgang Zur Lösung der Maxwell-Gleichungen in inhomogenen Medien. **82g:78007**
Stella, Attilio *See* **Nalesso, G. F., 82c:78006**
Striževskiĭ, V. L. (*with* Čepilko, N. M.) A problem of boundary conditions in electrodynamics of finite media with spatial dispersion. (Russian. English summary) **82m:78008**
Tiškin, V. F. *See* **Koršija, T. K.; et al., 82a:78005**
Waterman, P. C. Survey of *T*-matrix methods and surface field representations. (*See* **82h:78002**)
Wellner, Marcel Manifest gauge and Poincaré covariance. **82m:78009**
Želnorovič, V. A. Relativistic models of magnetizable and polarizable media and the energy-momentum tensor of an electromagnetic field. (Russian. English summary) **82g:78008**

secondary classifications:

Angles, Pierre Construction de revêtements du groupe conforme d'un espace vectoriel muni d'une "métrique" de type (p,q). **(82e:53050)**
Arques, Didier (*with* Roth, Jean-Pierre) Courant superficiel et champ magnétostatique associé. **(82k:58011)**
Aziz, A. K. (*with* Werschulz, Arthur G.) On finite element methods for the Helmholtz equation. **(82b:65111)**
Bocchieri, P. (*with* Loinger, A.) Locality of quantum electromagnetism. **(82c:81142)**
Boisseau, B. Gauge theory in Hamiltonian classical mechanics: the long range fields. **(82m:70021)**
Bordovicyn, V. A. *See* **Ternov, I. M.; et al., (82i:81061)**
Bosco, B. (*with* Sacchi, M. T.) On the inversion problem in classical electrodynamics and the "Casimir theorem". **(82m:78014)**
Broer, L. J. F. Nonlinear wave equations as Hamiltonian systems. **(82g:35101)**
Burrows, B. L. (*with* Perks, A. J.) Complementary variational principles and variational-iterative principles. **(82m:49060)**
Caflisch, Russel E. An inverse problem for Toeplitz matrices and the synthesis of discrete transmission lines. **(82k:15018)**
Cawley, Robert Gauge invariance and the Helmholtz conditions. **(82h:70019)**
Černjaev, A. P. Discovery of solutions of source-sink type for the potential of generalized Cauchy-Riemann systems of a certain type. (Russian) **(82m:35014)**
Erofeenko, V. T. Mutual re-expansion of cylindrical wave functions referred to different frames of reference. (Russian. English summary) **(82i:35027)**
Fichera, Gaetano Singularities of 3-dimensional potential functions at the vertices and at the edges of the boundary. **(82e:31007)**
Flato, Moshé (*with* Lichnerowicz, André) Cohomologie des représentations définies par la dérivation de Lie et à valeurs dans les formes, de l'algèbre de Lie des champs de vecteurs d'une variété différentiable. Premiers espaces de cohomologie. Applications. (English summary) **(82a:58025)**
Gallagher, Richard H. Shape functions. **(82g:65053)**
Garcia R., Catherine (*with* Minzoni, A. A.) An asymptotic solution for the wave equation in a time-dependent domain. **(82h:35058)**
Gimblett, C. G. *See* **Peckover, R. S., (82j:58024)**
Godin, O. A. On the plane wave reflection from a layered half space. (Russian) **(82h:73032)**
Hermann, Peter (*with* Kersten, Heinrich) Die Lösung der prae-Maxwellschen Gleichungen mit Hilfe vollständiger Lösungssysteme. (English summary) **(82b:35051)** (*with* Kersten, Heinrich) Über die stetige Abhängigkeit der Lösung des Neumann-Problems für die Prae-Maxwellschen Gleichungen von ihren Randdaten. **(82i:35018)**
Israeli, Moshe (*with* Orszag, Steven A.) Approximation of radiation boundary conditions. **(82g:65059)**
Iwai, Toshihiro Symmetry of vector wave equations dealt with in Hamiltonian formalism. **(82i:58030)**
Kelly, Robert E. Thermodynamics of blackbody radiation. **(82g:80003)**
Kersten, Heinrich *See* **Hermann, Peter, (82b:35051)** *and* **(82i:35018)**
de Kertanguy, A. (*with* Percival, Ian C.; Richards, Derek) Classical theory of the static Stark effect for weak fields. **(82c:81161)**
Kislov, V. V. Diagram of Penrose type for algebraic classification of electromagnetic fields. (Russian) **(82f:83052)**
Knauff, Werner (*with* Kress, Rainer) A modified integral equation method for the electric boundary-value problem for the vector Helmholtz equation. **(82d:35039)**
Kraus, Karl Galilei covariance does not imply minimal electromagnetic coupling. (German summary) **(82b:81123)**
Kravčenko, V. F. (*with* Mošinskiĭ, A. V.) The interdependence of fundamental solutions of the Helmholtz equations in superposed elliptic and cylindrical coordinates. (Russian. English summary) **(82b:35041)**
Kress, Rainer *See* **Knauff, Werner, (82d:35039)**
Krotov, V. F. Space-time deformations of an elastic medium and the equations of electrodynamics. **(82c:73079)**
Lecomte, Pierre B. A. Sur une équation aux dérivées partielles intervenant dans l'étude des symétries d'espace-temps du champ électromagnétique. (English summary) **(82e:53076)**
Lichnerowicz, André *See* **Flato, Moshé, (82a:58025)**
Loinger, A. *See* **Bocchieri, P., (82c:81142)**
Lousberg, P. Singularités dans les problèmes aux limites pour le système de Maxwell. (English summary) [Singularities in boundary value problems for the Maxwell system] **(82m:35131)**
Minzoni, A. A. *See* **Garcia R., Catherine, (82h:35058)**
Mošinskiĭ, A. V. *See* **Kravčenko, V. F., (82b:35041)**
Orszag, Steven A. *See* **Israeli, Moshe, (82g:65059)**
Peckover, R. S. (*with* Gimblett, C. G.) A simple electromagnetic catastrophe. **(82j:58024)**
Percival, Ian C. *See* **de Kertanguy, A.; et al., (82c:81161)**
Perks, A. J. *See* **Burrows, B. L., (82m:49060)**
Petry, Walter Elektrodynamik mit Spin. (English summary) **(82b:81126)**
Picard, Rainer Ein Kommentar zur Linienmethode bei der Maxwellschen Anfangsrandwertaufgabe. **(82h:35042)**
Rajski, Czesław Variational principle for dissipative dynamic systems. II. Examples of application. (Russian summary) **(82k:70014b)**
Ramm, Alexander G. On some properties of solutions of Helmholtz equation. **(82f:35062)**
Razina, G. K. *See* **Ternov, I. M.; et al., (82i:81061)**
Richards, Derek *See* **de Kertanguy, A.; et al., (82c:81161)**
Roth, Jean-Pierre *See* **Arques, Didier, (82k:58011)**
Sacchi, M. T. *See* **Bosco, B., (82m:78014)**
Sprössig, Wolfgang Construction of local solutions for Maxwell equations. (*See* **82k:49004**)
Ternov, I. M. (*with* Bordovicyn, V. A.; Razina, G. K.) Spin dynamics in orthogonal fields. (Russian) **(82i:81061)**
Terras, Riho Normal modes for Green's functions and the method of theta functions. **(82e:82019)**
Tuck, E. O. Application and solution of Cauchy singular integral equations. **(82c:45003)**
Weinert, M. Solution of Poisson's equation: beyond Ewald-type methods. **(82m:31008)**
Werschulz, Arthur G. *See* **Aziz, A. K., (82b:65111)**

78A30 Electro- and magnetostatics

Barshinger, Richard N. (*with* Geer, James F.) The electrostatic potential field about a thin oblate body of revolution. **82g:78009**
Bergmanis, K. A. (*with* Ozols, K. D.) Calculation of a mathematical model of a capacative transducer for the quality control of articles of cylindrical shape. (Russian. English summary) **82d:78012**
Chew, W. C. (*with* Kong, J. A.) Asymptotic formula for the capacitance of two oppositely charged discs. **82h:78008**
Dolzycki, Stanisław J. Source equivalency based on the energy specification of order *l*. **82i:78011a**
On the Lorentz dipole approximation in static electrodynamics. **82i:78011b**
Fichera, Gaetano Mathematical theory of "points effect" in electricity conducting surfaces. (Italian summary) **82j:78003**
Fraenkel, L. E. A lower bound for electrostatic capacity in the plane. **82i:78012**
Geer, James F. *See* **Barshinger, Richard N., 82g:78009**
Havixbeck, D. *See* **Schomberg, H., 82c:78007**
Heyes, D. M. Electrostatic potentials and fields in infinite point charge lattices. **82i:78013**
Homentcovschi, Dorel On the determination of certain plane parallel potential fields with mixed boundary conditions. (Romanian. French summary) **82d:78013**
Kong, J. A. *See* **Chew, W. C., 82h:78008**
Kuzeev, R. R. (*with* Singatullin, R. S.) Electric field of a dipole in spaces of positive curvature. (Russian) **82d:78014**
Monkhorst, Hendrik J. (*with* Schwalm, William A.) Electrostatics for periodic films of atoms. **82i:78014**
Ozols, K. D. *See* **Bergmanis, K. A., 82d:78012**
Rosenfeld, Aron Marcus (*with* Timsit, R. S.) The potential distribution in a constricted cylinder: an exact solution. **82m:78010**
Schomberg, H. (*with* Havixbeck, D.) A parallel finite difference method for the magnetostatic equation. **82c:78007**
Schwalm, William A. *See* **Monkhorst, Hendrik J., 82i:78014**
Singatullin, R. S. *See* **Kuzeev, R. R., 82d:78014**
Stepleman, R. S. Refinements of the method of moments for the solution of the charged lamina problem in 3-D. **82c:78008**
Timsit, R. S. *See* **Rosenfeld, Aron Marcus, 82m:78010**
Trowbridge, C. W. Applications of integral equation methods to the numerical solution of magnetostatic and eddy-current problems. **82c:78009**

secondary classifications:

Borodickiĭ, M. P. Investigation of the asymptotic behavior of the solution of a nonstandard variational problem. (Russian) **(82j:49004)**
Cade, R. Neumann's method for Robin's integral equation in E^2 for a curve with a vertex. **(82f:45001)**
Costen, Robert C. Jump conditions for fields that have infinite, integrable singularities at an interface. **(82h:78004)**
Fichera, Gaetano Asymptotic behavior of an electrical field around singular points of the conducting surface. (Russian) **(82i:31004)**
Kühnau, Reiner Zur Moduländerung eines Vierecks bei quasikonformer Abbildung. **(82f:30024)**
Zoriĭ, N. V. Estimates of capacities and energies in capacitor reconstruction. (Russian) **(82e:30029)**

78A35 Motion of charged particles

Antonacopoulos, G. *See* **Dionysiou, Demetrios D., 82c:78010**
Auerbach, S. P. *See* **Cohen, Bruce I.; et al., 82a:78009**
Bondi, Hermann Radiation from accelerated charges. **82k:78004**
Byers, J. A. *See* **Cohen, Bruce I.; et al., 82a:78009**
Cohen, Bruce I. (*with* Auerbach, S. P.; Byers, J. A.) Some conservation properties of linearized particle codes. **82a:78009**
Dionysiou, Demetrios D. (*with* Antonacopoulos, G.) Relativistic dynamics for three charged particles. **82c:78010**

Gambini, R. (*with* Trias, A.) Exact solutions of the motion equations for a classical spinning particle with radiation damping. **82d:78015**

Honda, Yumiko (*with* Kawakita, Yosiko; Kondô, Kyôko; Iwata, Giiti) Motion of a charged particle in an electromagnetic field. **82c:78011**

Horndeski, Gregory Walter Remarks on charged point particles in special relativity. **82m:78011**

Iwata, Giiti *See* **Honda, Yumiko; et al., 82c:78011**

Jones, Roger D. Constants of motion in a helical magnetic field. **82i:78015**

Kawakita, Yosiko *See* **Honda, Yumiko; et al., 82c:78011**

Kondô, Kyôko *See* **Honda, Yumiko; et al., 82c:78011**

Laville, Guy Changement de jauge de deuxième espèce pour l'électron de Landau et équations de Cauchy-Riemann tangentielles. (English summary) **82c:78012**

Lemke, E. H. On the stability of the motion of uncharged dipoles. **82m:78012**

Lykosov, V. M. On the characteristic electromagnetic field of a relativistic charged particle. (Russian) **82i:78016**

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Reed, G. A. L. *See* **Sander, K. F., (82c:78014)**

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Alimov, Š. A. A boundary value problem for an elliptic operator. (Russian) **(82j:35044)**

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Babkin, G. I. (*with* Kljackin, V. I.; Ljubavin, L. Ja.) Theory of invariant imbedding and waves in statistically inhomogeneous media. (Russian) **(82f:78006)**

Bertero, M. (*with* de Mol, Ch.; Viano, G. A.) The stability of inverse problems. **(82j:65068)**

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Krueger, Robert J. Numerical aspects of a dissipative inverse problem. **(82e:65133)**

Lannes, A. Abstract holography. **(82d:65050)**

Ljubavin, L. Ja. *See* **Babkin, G. I.; et al., (82f:78006)**

de Mol, Ch. *See* **Bertero, M.; et al., (82j:65068)**

Morawetz, Cathleen Synge *See* **Kriegsmann, Gregory A., (82h:65097)**

(Petit, Roger) *See* **Electromagnetic theory of gratings, (82a:78001)**

(Sáenz, Albert W.) *See* **Mathematical methods and applications of scattering theory, (82h:81117)**

Šatalov, V. E. *See* **Sternin, B. Ju., (82b:58091)**

Sergeev, A. V. Uniqueness of the values of a wave field reconstructed by the inverse diffraction method. **(82i:73015)**

Sleeman, B. D. Two-dimensional inverse scattering and conformal mappings. **(82k:76063)**

Sternin, B. Ju. (*with* Šatalov, V. E.) A method for calculating diffraction by a convex body. (Russian) **(82b:58091)**

Strauss, Walter A. *See* **Cooper, Jeffery, (82c:35055)**

Svešnikov, A. G. *See* **Voevodin, V. V.; et al., (82e:65136)**

Tyrtyšnikov, E. E. *See* **Voevodin, V. V.; et al., (82e:65136)**

(Varadan, Vasundara V.) *See* **Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach, (82h:78002)**

(Varadan, Vijay K.) *See* **Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach, (82h:78002)**

Viano, G. A. *See* **Bertero, M.; et al., (82j:65068)**

Voevodin, V. V. (*with* Svešnikov, A. G.; Tyrtyšnikov, E. E.) An effective numerical method for solving an integral equation of the second kind in problems of electrodynamics. (Russian) **(82e:65136)**

Wolf, Emil Phase conjugacy and symmetries in spatially bandlimited wavefields containing no evanescent components. **(82h:78013)**

Wright, F. J. The Stokes set of the cusp diffraction catastrophe. **(82b:58020)**

(Zachary, Woodford W.) *See* **Mathematical methods and applications of scattering theory, (82h:81117)**

Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**

Columbus, Ohio ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**

Conference:

Mathematical Methods and Applications of Scattering Theory ★Mathematical methods and applications of scattering theory. **(82h:81117)**

Electromagnetic theory of gratings ★Electromagnetic theory of gratings. **(82a:78001)**

Gratings ★Electromagnetic theory of gratings. **(82a:78001)**

Mathematical methods and applications of scattering theory ★Mathematical methods and applications of scattering theory. **(82h:81117)**

Scattering theory ★Mathematical methods and applications of scattering theory. **(82h:81117)**

Symposium:

Acoustic, Electromagnetic and Elastic Wave Scattering—Focus on the *T*-Matrix Approach ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**

Washington, D.C. ★Mathematical methods and applications of scattering theory. **(82h:81117)**

Wave scattering ★Acoustic, electromagnetic and elastic wave scattering—focus on the *T*-matrix approach. **(82h:78002)**

78A50 Antennas, wave-guides

Abdullaev, S. S. (*with* Zaslavskiĭ, G. M.) Nonlinear dynamics of rays in inhomogeneous media. **82m:78020**

Bahrah, L. D. (*with* Litvinov, O. S.) On an effective method for calculating the coefficients of Fourier series of functions of high-directional antenna diagrams. (Russian) **82c:78022**

Barsukov, K. A. (*with* Grigorjan, G. A.) Excitation of a waveguide with a moving boundary. (Russian. Armenian and English summaries) **82d:78022**

Cap, Ferdinand Toroidal resonators and waveguides of arbitrary cross section. **82j:78010**

Caron, Armand (*with* Dupuy, M.; Pichot, Ch.) Numerical solution of singular integral equations. Application to the flanged plane waveguide. **82d:78023**

Černyĭ, B. I. Asymptotic representation of the solution of equations of the electrodynamics of near-surface induction heating of electroconducting shells. (Russian. English summary) **82b:78023**

Derguzov, V. I. On the discrete spectrum of a periodic boundary value problem connected with the study of periodic waveguides. (Russian) **82g:78023**

Dupuy, M. *See* **Caron, Armand; et al., 82d:78023**

Felsen, Leopold B. (*with* Kamel, Aladin H.) Hybrid ray-mode formulation of parallel plane waveguide Green's functions. **82h:78023**

Filippov, V. B. A method of point source field calculation in a waveguide. (Russian. English summary) **82g:78024**

Fukai, Ichiro *See* **Washisu, Shin; et al., 82g:78026**

Grigorjan, G. A. *See* **Barsukov, K. A., 82d:78022**

Hestanov, R. H. Diffraction on the open end of a waveguide with a flange. Regularization of the integral equation. **82c:78023**

Ikeuchi, Masatoshi (*with* Inoue, Kazuo; Sawami, Hideo; Niki, Hiroshi) Arbitrarily shaped hollow waveguide analysis by the α-interpolation method. **82b:78024**

Inoue, Kazuo *See* **Ikeuchi, Masatoshi; et al., 82b:78024**

Kamel, Aladin H. *See* **Felsen, Leopold B., 82h:78023**

Kheifets, Semyon A. Electromagnetic fields in an axial symmetric waveguide with variable cross section. **82a:78018**

Kolesnikov, P. M. (*with* Martynenko, O. G.; Rudenok, I. P.) Contribution to the theory of waves in open gradient fiber lightguides. **82b:78025**

Kumagai, Nobuaki *See* **Morita, Nagayoshi, 82h:78024**

Litvinov, O. S. *See* **Bahrah, L. D., 82c:78022**

MacPhie, Robert H. *See* **Safavi-Naini, Reza, 82d:78026**

Martynenko, O. G. *See* **Kolesnikov, P. M.; et al., 82b:78025**

Minkovič, B. M. Optimization of linear, equally spaced, symmetrically excited antenna arrays. (Russian) **82h:78026**

Mokin, Ju. I. An algorithm for calculation of emission current density in a beam focusing problem. (Russian) **82c:78024**

Molotkov, I. A. (*with* Starkov, A. S.) Local resonance interaction of normal waves in a system containing connected waveguides. (Russian) **82d:78024**

Morita, Nagayoshi (*with* Kumagai, Nobuaki) The expansion of cylindrical fiber modes in a spherical coordinate. **82h:78024**

Mošinskiĭ, A. V. The method of auxiliary basis functions in waveguide problems of scattering. (Russian) **82a:78019**

Solution of a boundary value problem on the scattering of a wave of type H_{10} by a cylindrical inhomogeneity of elliptic profile in a rectangular waveguide. (Russian) **82h:78025**

Niki, Hiroshi *See* **Ikeuchi, Masatoshi; et al., 82b:78024**

Oliner, Arthur A. *See* **Peng, Song Tsuen, 82h:78026**

Orikasa, Teruaki *See* **Washisu, Shin; et al., 82g:78026**

Peng, Song Tsuen (*with* Oliner, Arthur A.) Guidance and leakage properties of a class of open dielectric waveguides. I. Mathematical formulations. **82h:78026**

Pichot, Ch. *See* **Caron, Armand; et al., 82d:78023**

Plačenov, A. B. Nonstationary normal waves of a thin curved waveguide in a multiray zone (uniform asymptotics). (Russian. English summary) **82d:78025**

Pospíšil, Jaroslav Electromagnetic theory of the optical waves propagation through the isotropic and unisotropic dielectrical waveguides in the integrated optics. (Czech. Russian and English summaries) **82j:78011**

Rudenok, I. P. *See* **Kolesnikov, P. M.; et al., 82b:78025**

de Ruiter, H. M. Integral-equation approach to the computation of modes in an optical waveguide. **82a:78020**

Safavi-Naini, Reza (*with* MacPhie, Robert H.) On solving waveguide junction scattering problems by the conservation of complex power technique. **82d:78026**

Savenko, P. A. *See* **Voitovič, N. N., 82b:78027**

Sawami, Hideo *See* **Ikeuchi, Masatoshi; et al., 82b:78024**

Starkov, A. S. *See* **Molotkov, I. A., 82d:78024**

Ujihara, Kikuo Theory of an arbitrarily stratified optical cavity with output coupling. **82g:78025**

Voitovič, N. N. (*with* Savenko, P. A.) Synthesis of antennas from a specified amplitude pattern and related problems in quasioptics (review). **82b:78027**

Washisu, Shin (*with* Orikasa, Teruaki; Fukai, Ichiro) Analysis of two-dimensional

H-plane horns by the finite element method extended to unbounded fields. (Japanese. English summary) **82g:78026**

Zaslavskiĭ, G. M. *See* **Abdullaev, S. S., 82m:78020**

secondary classifications:

Alvarez-Estrada, R. F. (*with* Calvo, M. L.) Inhomogeneous dielectric slabs with analytic frequency-dependent permittivities. (French and German summaries) **82i:78001**
Arnold, J. M. Unified asymptotic theory of asymmetrical planar waveguides. **82a:76067**
Bahar, E. (*with* Fitzwater, M.) Numerical technique to trace the loci of the complex roots of characteristic equations. **82k:65025**
Brickell, F. A mapping problem in geometrical optics. **82d:78003**
Brown, John *See* **Clarke, R. H., 82c:78001**
Calvo, M. L. *See* **Alvarez-Estrada, R. F., 82i:78001**
Clarke, R. H. (*with* Brown, John) ★Diffraction theory and antennas. **82c:78001**
Fitzwater, M. *See* **Bahar, E., 82k:65025**
Henderson, T. L. Geometric methods for determining system poles from transient response. **82k:94003**
Hestanov, R. H. Short-wave asymptotic form of the problem of diffraction on the open end of a waveguide with a flange. **82a:78014**
Hugonin, J. P. (*with* Petit, Roger) Theoretical and numerical study of a locally deformed stratified medium. **82f:78009**
Ignizio, James P. Antenna array beam pattern synthesis via goal programming. **82b:90108**
Jones, D. S. Note on the integral equation for a straight wire antenna. **82e:45004**
Kopilevič, Ju. I. *See* **Zil'bergleĭt, A. S., 82h:47017**
Petit, Roger *See* **Hugonin, J. P., 82f:78009**
Zil'bergleĭt, A. S. (*with* Kopilevič, Ju. I.) On properties of waves associated with quadratic operator pencils. (Russian) **82h:47017**

78A55 Technical applications

Anderssen, R. S. (*with* Calligaro, R. B.) Nondestructive testing of optical-fibre preforms. **82k:78011**
Bountis, Tassos (*with* Coutsias, Evangelos) On an application of perturbation methods to the beam-beam interaction. **82m:78021**
Calligaro, R. B. *See* **Anderssen, R. S., 82k:78011**
Čirikov, B. V. (*with* Ford, Joseph; Vivaldi, Franco) Some numerical studies of Arnold diffusion in a simple model. (*See* **82g:78001**)
Coutsias, Evangelos *See* **Bountis, Tassos, 82m:78021**
Dragt, Alex J. Transfer map approach to the beam-beam interaction. **82i:78027**
Egorov, A. I. (*with* Šakirov, V. N.) Optimal control of vibrations of a conductor with a current in a magnetic field. (Russian) **82c:78025**
Ertinger, Zdeněk Lagrangian manifolds in the theory of electrical circuits. (*See* **82e:94002**)
Ford, Joseph *See* **Čirikov, B. V.; et al.,** (*See* **82g:78001**)
Forsyth, P., Jr. (*with* Rasmussen, H.) Comparison of variational inequality and front-tracking solution of an electrochemical machining problem. **82b:78028**
Helleman, Robert H. G. Exact results for some linear and nonlinear beam-beam effects. **82i:78028**
Jacobs, Ernest (*with* Ralston, Elizabeth W.) Ambiguity resolution in interferometry. **82m:78022**
Lawrenson, P. J. (*with* Miller, T. J. E.) Transient solution of the diffusion equation by discrete Fourier transformation. **82c:78026**
Milić, Mirko M. (*with* Novak, Ladislav A.) A general method of formulation of Lagrangian and anti-Lagrangian equations for nonlinear RLCMTG networks. (*See* **82e:94002**)
Miller, T. J. E. *See* **Lawrenson, P. J., 82c:78026**
Novak, Ladislav A. *See* **Milić, Mirko M.,** (*See* **82e:94002**)
Pilipeckiĭ, N. F. *See* **Zel'dovič, Ja. B.; et al., 82c:78027**
Ralston, Elizabeth W. *See* **Jacobs, Ernest, 82m:78022**
Rasmussen, H. *See* **Forsyth, P., Jr., 82b:78028**
Sabonnadière, J. C. Numerical analysis of eddy-current problems. **82b:78029**
Šakirov, V. N. *See* **Egorov, A. I., 82c:78025**
Sikora, Jan *See* **Stabrowski, Marek, 82h:78030**
Škunov, V. V. *See* **Zel'dovič, Ja. B.; et al., 82c:78027**
Stabrowski, Marek (*with* Sikora, Jan) Some problems of numerical analysis of electromagnetic field distribution in an electric motor with composite motion. (Polish. English, French, German and Russian summaries) **82h:78030**
Sudarkin, A. N. *See* **Zel'dovič, Ja. B.; et al., 82c:78027**
Tennyson, Jeffrey The instability threshold for bunched beams in ISABELLE. (*See* **82g:78001**)
Turowski, Janusz Generalized equations for electromechanical and electrodynamic energy conversion. (Polish, French, German and Russian summaries) **82m:78023**
Vivaldi, Franco *See* **Čirikov, B. V.; et al.,** (*See* **82g:78001**)
Zel'dovič, Ja. B. (*with* Pilipeckiĭ, N. F.; Sudarkin, A. N.; Škunov, V. V.) Wave front reversal by a surface. (Russian) **82c:78027**

secondary classifications:

Bassanini, Piero (*with* Cesarina Salvatori, M.) A theorem of existence and uniqueness in nonlinear optics. (Italian summary) **82c:78003**
Bloom, Frederick On the nonexistence of globally bounded solutions to initial-history value problems for integro-differential equations. **82m:45016**
Boerner, Wolfgang-M. Polarization utilization in electromagnetic inverse scattering. **82h:78012**
Bossavit, Alain On the numerical analysis of eddy-current problems. **82m:78005**
Cazenave, Thierry Equations de Schrödinger non linéaires en dimension deux. (English summary) **82a:35031**
Cesarina Salvatori, M. *See* **Bassanini, Piero, 82c:78003**
Chang, Tao (*with* Herman, Gabor T.) A scientific study of filter selection for a fan-beam convolution reconstruction algorithm. **82g:92012**
Favorskiĭ, A. P. *See* **Koršija, T. K.; et al., 82a:78005**
Feeney, R. (*with* Schmidt, S. L.; Ortoleva, Peter) Experiments on electric field-BZ chemical wave interactions: annihilation and the crescent waves. **82h:92013**
Graĕ, I. M. Integral solutions of the Laplace equation. (Russian) **82e:31010**
Grzegorczyk, Józef Stability of the initial-boundary value problem describing the time variation of voltages and currents in a two-wire long line. **82j:35100**
Helton, J. William The distance of a function to H^∞ in the Poincaré metric; electrical power transfer. **82f:32035**
Herman, Gabor T. *See* **Chang, Tao, 82g:92012**
Jacenko, V. A. *See* **Semenov, V. N., 82c:93019**
Komesaroff, M. M. (*with* Narayan, Ramesh; Nityananda, Rajaram) The maximum entropy method of image restoration-properties and limitations. **82a:94040**
Koršija, T. K. (*with* Tiškin, V. F.; Favorskiĭ, A. P.; Šaĭkov, M. Ju.) Variational-flux difference schemes for the calculation of magnetic field diffusion. (Russian) **82a:78005**
Koslowski, Jerzy Conditions for self-excitation of almost periodic oscillations in a ferromagnetic two-core circuit with submagnetization. (Polish. Russian and English summaries) **82f:93052**
Narayan, Ramesh *See* **Komesaroff, M. M.; et al., 82a:94040**
Nazarathy, Moshe (*with* Shamir, Joseph) Wavelength variation in Fourier optics and holography described by operator algebra. **82i:78006**
Neprincev, V. I. Self-excited oscillators with distributed parameters, their mathematical models and methods of analysis. (*See* **82k:70002b**)
Nityananda, Rajaram *See* **Komesaroff, M. M.; et al., 82a:94040**
Ortoleva, Peter *See* **Feeney, R.; et al., 82h:92013**
Rasvan, V. Existence, stability and computation of forced oscillations in nonlinear distributed electrical networks. (*See* **82k:70002b**)
Šarkovs'kiĭ, O. M. Oscillations described by autonomous difference and differential-difference equations. (Russian) (*See* **82k:70002b**)
Šaĭkov, M. Ju. *See* **Koršija, T. K.; et al., 82a:78005**
Schmidt, S. L. *See* **Feeney, R.; et al., 82h:92013**
Semenov, V. N. (*with* Jacenko, V. A.) An application of path integrals. (Russian) **82c:93019**
Shamir, Joseph *See* **Nazarathy, Moshe, 82i:78006**
Tiškin, V. F. *See* **Koršija, T. K.; et al., 82a:78005**
Vlasov, A. D. Energy balance of a beam of charged particles and the kinetic power theorem. **82g:78011**

78A60 Lasers, masers, optical bistability [See also 81K05.]

D'Souza, Maryna (*with* Kumar, Arvind; D'Souza, Richard) Nonlinear resonant transient and steady-state response in a classical model. **82i:78029**
D'Souza, Richard *See* **D'Souza, Maryna; et al., 82i:78029**
Kumar, Arvind *See* **D'Souza, Maryna; et al., 82i:78029**

secondary classifications:

Donato, Andrea (*with* Fusco, Domenico) Some applications of the Riemann method to electromagnetic wave propagation in nonlinear media. **82i:78018**
Fusco, Domenico *See* **Donato, Andrea, 82i:78018**
Mangel, Marc Simple theory of relaxation from instabilities. **82m:82022**

78A70 Biological applications [See also 92A09, 92A27.]

78A97 Mathematically heuristic optics and electromagnetic theory (must also be assigned at least one other classification number in this section)

78A99 Miscellaneous topics

secondary classifications:

Acker, Andrew An extremal problem involving current flow through distributed resistance. **82b:49005**
Bielski, Włodzimierz (*with* Matysiak, Stanisław) Green functions for some problems of electroelasticity. (Russian summary) **82a:73056**
(Gindikin, S. G.) *See* **Guillemin, Victor; et al., 82k:58085**
Guillemin, Victor (*with* Sternberg, Shlomo) ★Геометрические асимптотики. (Russian) [Geometric asymptotics] **82k:58085**
Harthong, Jacques Le moiré. **82i:78003**
Hashitsume, Natsuki (*with* Shibata, Fumiaki) Maxwell-Langevin equations and the Kubo formulae. **82j:82033**
Matysiak, Stanisław *See* **Bielski, Włodzimierz, 82a:73056**
Nicolas, Patrice Un problème de transmission inverse appliqué à la restitution des activités électriques de l'encéphale. (English summary) **82b:92017**
Novak, Miroslav M. Interaction of photons with electrons in dielectric media. **82h:82033**
Shibata, Fumiaki *See* **Hashitsume, Natsuki, 82j:82033**
Sternberg, Shlomo *See* **Guillemin, Victor, 82k:58085**
Stewart, Ian Applications of catastrophe theory to the physical sciences. **82j:58025**
Tacii, R. M. On the order of growth of a characteristic series. (Russian) **82j:30036**
Wilcox, Calvin H. Theory of Bloch waves. **82b:82068**

80–XX CLASSICAL THERMODYNAMICS, HEAT TRANSFER {For thermodynamics of solids, see 73B30.}

80–01 Elementary exposition, textbooks

80–02 Advanced exposition (research surveys, monographs, etc.)

Avdonins, N. ★Математическое описание процессов кристаллизации. (Russian) [A mathematical description of crystallization processes] **82b:80001**

secondary classifications:

Barenblatt, G. I. *See* **Zel'dovič, Ja. B.; et al., (82i:80008)**
Librovič, V. B. *See* **Zel'dovič, Ja. B.; et al., (82i:80008)**
Mahviladze, G. M. *See* **Zel'dovič, Ja. B.; et al., (82i:80008)**
Petrov, B. N. (*with* Ulanov, G. M.; Ul'janov, S. V.) Dynamical systems with random and fuzzy structure. (Russian) **(82h:93063)**
Ulanov, G. M. *See* **Petrov, B. N.; et al., (82h:93063)**
Ul'janov, S. V. *See* **Petrov, B. N.; et al., (82h:93063)**
Zel'dovič, Ja. B. (*with* Barenblatt, G. I.; Librovič, V. B.; Mahviladze, G. M.) ★Математическая теория горения и взрыва. (Russian) [Mathematical theory of combustion and explosion] **(82i:80008)**

80–03 Historical (must also be assigned at least one classification number from Section 01)

Ljubimov, Ju. A. On the history of the origin of the Clausius-Mossotti relation. Mossotti's role. (Russian. English summary) **82d:80001**
(Mossotti, O. F.) *See* **Ljubimov, Ju. A., 82d:80001**

secondary classifications:

(Alihan'jan, A. I.) *See* **Bessarab, M. Ja., (82c:01045)**
Bessarab, M. Ja. ★Ландау. (Russian) [Landau] **(82c:01045)**
Byrne, Patrick H. The origins of Einstein's use of formal asymmetries. **(82e:01071)**
Krüger, Lorenz Reduction as a problem. **(82k:01026)**
(Landau, L. D.) *See* **Bessarab, M. Ja., (82c:01045)**
Rowlinson, J. S. Translation of J. D. van der Waals' "The thermodynamic theory of capillarity under the hypothesis of a continuous variation of density". **(82e:01128)**
(van der Waals, J. D.) *See* **Rowlinson, J. S., (82e:01128)**
Biography:
Landau, L. D. *See* **Bessarab, M. Ja., (82c:01045)**

80–04 Explicit machine computation and programs (not the theory of computation or programming)

80–05 Experimental papers

80–06 Proceedings, conferences, etc.

(Lewis, R. W.) *See* **Numerical methods in thermal problems, 82g:80001**
(Morgan, K.) *See* **Numerical methods in thermal problems, 82g:80001**
Conference:
Numerical Methods in Thermal Problems ★Numerical methods in thermal problems. **82g:80001**
Numerical methods in thermal problems ★Numerical methods in thermal problems. **82g:80001**
Swansea ★Numerical methods in thermal problems. **82g:80001**

secondary classifications:

(Chao, Kwang Chu) *See* **Equations of state in engineering and research, (82f:82003)**
(Robinson, Robert L., Jr.) *See* **Equations of state in engineering and research, (82f:82003)**
(Stephenson, John) *See* **Statphys, (82d:82003)**
Conference:
Army Mathematicians ★Transactions of the Twenty-seventh Conference of Army Mathematicians. **(82k:00010)**
Thermodynamics and Statistical Mechanics ★Statphys 14. **(82d:82003)**
Edmonton, Alta. ★Statphys 14. **(82d:82003)**
Engineering ★Equations of state in engineering and research. **(82f:82003)**
Equations of state in engineering and research ★Equations of state in engineering and research. **(82f:82003)**
Meeting:
American Chemical Society ★Equations of state in engineering and research. **(82f:82003)**
Miami Beach, Fla. ★Equations of state in engineering and research. **(82f:82003)**
Statistical mechanics ★Statphys 14. **(82d:82003)**
Statphys ★Statphys 14. **(82d:82003)**
Symposium:
Equations of State in Engineering and Research ★Equations of state in engineering and research. **(82f:82003)**
Thermodynamics ★Statphys 14. **(82d:82003)**
Transactions:
Conference of Army Mathematicians ★Transactions of the Twenty-seventh Conference of Army Mathematicians. **(82k:00010)**
West Point, N.Y. ★Transactions of the Twenty-seventh Conference of Army Mathematicians. **(82k:00010)**

80A05 Foundations

Šilhavý, M. On measures, convex cones, and foundations of thermodynamics. I. Systems with vector-valued actions. **82k:80001a**
On measures, convex cones, and foundations of thermodynamics. II. Thermodynamic systems. **82k:80001b**
Woods, L. C. On the local form of the second law of thermodynamics in continuum mechanics. **82j:80001**

80A10 Classical thermodynamics

Abriata, J. P. Comment on a thermodynamic proof of the inequality between arithmetic and geometric mean. **82b:80003**
Biot, Maurice A. Dissipation virtuelle et thermodynamique des systèmes ouverts. [Virtual dissipation and the thermodynamics of open systems] (*See* **82k:00008**)
Bouillet, Julio E. Heat-flux comparison based on properties of the medium. **82g:80002**
Burchard, H. G. (*with* Waldo, R. A.) Some mathematical properties of empirical Gibbs functions. **82c:80001**
Carini, Giovanni On the first principle of thermodynamics in the mechanics of classical continua and in relativistic fluid dynamics. (Italian. English summary) **82f:80001**
Gariel, J. Sur une méthode de présentation de la thermodynamique classique des procès irréversibles. (English summary) **82e:80001**
Gumiński, K. On the Natanson principle of irreversible processes. **82f:80002**
Hermann, Robert (*with* Hurt, Norman E.) Some relations between system theory and statistical mechanics. **82i:80001**
Hurt, Norman E. *See* **Hermann, Robert, 82i:80001**
Keizer, J. Thermodynamics of nonequilibrium processes. (*See* **82k:00028**)
Kelly, Robert E. Thermodynamics of blackbody radiation. **82g:80003**
Landsberg, P. T. A thermodynamic proof of the inequality between arithmetic and geometric mean. **82b:80002**
A generalised mean suggested by the equilibrium temperature. **82d:80002**
Mistura, Luciano On the shape of the coexistence curve and of the critical isotherm in a density-density plane. **82d:80003**
Nitzan, Abraham *See* **Salamon, Peter, 82d:80004**
Prigogine, Ilya Temps, entropie et dynamique. [Time, entropy and dynamics] (*See* **82k:00008**)
Richardson, I. W. The method structure of aging (dissipative) systems. **82c:80002**
Salamon, Peter (*with* Nitzan, Abraham) Finite time optimizations of a Newton's law Carnot cycle. **82d:80004**
Sidhu, S. S. On thermodynamic proofs of mathematical results. **82b:80004**
Simons, Stuart On the entropy variation during the passage to radiative equilibrium. **82b:80005**
Truesdell, Clifford Proof that my work estimate implies the Clausius-Planck inequality. (Italian summary) **82k:80002**
Waldo, R. A. *See* **Burchard, H. G., 82c:80001**
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80A15 Thermodynamics of mixtures

Coufal, Oldřich Calculation of heterogeneous-system composition in the equilibrium state. **82d:80005**
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(*with* Srivastava, K. K.; Verma, R. L.) Thermodynamic method to two-dimensional stagnation flow and heat transfer. **(82e:76024)**
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80A25 Combustion, interior ballistics

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Kapila, A. K. Development of deflagration on initially cold combustibles. **82c:80014**
Kassoy, D. R. (*with* Poland, Justin) The thermal explosion confined by a constant temperature boundary. I. The induction period solution. **82h:80017**
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Kordylewski, W. K. Nonstationary method for calculating critical parameters of thermal explosion. (*See* **82g:80001**)
Kurdjumov, S. P. (*with* Kurkina, E. S.; Malineckiĭ, G. G.; Samarskiĭ, A. A.) Dissipative structures in an inhomogeneous nonlinear burning medium. (Russian) **82c:80015**
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Lin, Shao Shiung Traveling wave solutions of a model system for flame propagation. **82c:80016**
Mahviladze, G. M. *See* **Zel'dovič, Ja. B.; et al., 82i:80008**
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Matkowsky, Bernard J. (*with* Olagunju, David O.) Propagation of a pulsating flame front in a gaseous combustible mixture. **82d:80023**
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(*with* Matkowsky, Bernard J.) On the stability of nonadiabatic flames. **82h:80005**
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Tam, K. Kuen Initial data and criticality for a problem in combustion theory. **82k:80005**
(*with* Kiang, M. T.) The response to a hot spot in a combustion problem. **82h:80006**
Timohin, A. M. *See* **Baušev, V. S.; et al., 82h:80004**
Viliunov, V. N. *See* **Baušev, V. S.; et al., 82h:80004**
Vovožcov, E. V. (*with* Fedorov, A. V.; Fomin, V. M.) The flow of a gas-coal particle mixture in coal mines with the desorption phenomenon taken into account. **82c:80017**
Zel'dovič, Ja. B. (*with* Barenblatt, G. I.; Librovič, V. B.; Mahviladze, G. M.) ★Математическая теория горения и взрыва. (Russian) [Mathematical theory of combustion and explosion] **82i:80008**
(*with* Malomed, B. A.) Topological invariants and strings in distributed active dynamical systems. (Russian) **82d:80024**

secondary classifications:

Barenblatt, G. I. ★Подобие, автомодельность, промежуточная асимптотика.(Russian) [Similarity, self-similarity, and intermediate asymptotics] **(82c:76001a)**
★Similarity, self-similarity, and intermediate asymptotics. **(82c:76001b)**
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Eyring, Henry (*with* Caldwell, Dennis) Inductive and deductive science. **(82j:00023)**
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Lacey, A. A. The spatial dependence of supercritical reacting systems. **(82f:80004)**
Leela, S. The role of quasisolutions in the study of differential equations. **(82i:34035)**
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Reiss, Edward L. A new asymptotic method for jump phenomena. **(82h:58031)**
(Stein, Norman) *See* **Barenblatt, G. I., (82c:76001b)**
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Conference:
Role of Coherent Structures in Modelling Turbulence and Mixing ★The role of coherent structures in modelling turbulence and mixing. **(82c:76062)**
Madrid ★The role of coherent structures in modelling turbulence and mixing. **(82c:76062)**
Role of coherent structures in modelling turbulence and mixing ★The role of coherent structures in modelling turbulence and mixing. **(82c:76062)**
Structures ★The role of coherent structures in modelling turbulence and mixing. **(82c:76062)**
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80A30 Chemical kinetics [See also 92A09, 92A40.]

Ames, W. F. (*with* Falco, J.; Lohner, R.) Mathematical analysis of models for pollutant transport and dissipation. **82b:80019**
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Aris, Rutherford Art and craft in the modelling of chemical processes. **82d:80026**
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Ciurlizza, G. A. (*with* Jiménez, P. R. M.) Application of "projective geometry" to Guggenheim's method of calculating the constants of speed of reaction. (Spanish. English summary) **82c:80020**
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Engel, W. G. Lagrange-Hamilton's formalism and the chemical reaction. II. The differential equations of chemical kinetics. Chemical Lagrangian functions and inertias. Chemical inertia and chemical affinity. Chemical resistance. Catalysis. (Portuguese summary) **82k:80008**

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Fife, Paul C. On the question of the existence and nature of homogeneous-center target patterns in the Belousov-Zhabotinskiĭ reagent. **82i:80009**

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Fujisaka, H. (*with* Yamada, Tomoji) Limit cycles and chaos in realistic models of the Belousov-Zhabotinskii reaction system. **82e:80010**

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(*with* Varon, R.; Canovas, F. Garcia) II. Transient phase of two-substrate enzyme systems. **82m:80006b**

(*with* Varon, R.; Carmona, F. G.) III. Kinetics of enzyme reactions with inactivation steps. **82m:80006c**

Gilles, E. Dieter (*with* Ruppel, Wilhelm) Model reduction of chemically reacting systems. (*See* **81i:80001**)

Golubitsky, Martin (*with* Keyfitz, Barbara Lee; Schaeffer, David G.) A singularity theory approach to qualitative behavior of complex chemical systems. **82i:80011**

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Grote, Richard F. (*with* Hynes, James T.) The stable states picture of chemical reactions. II. Rate constants for condensed and gas phase reaction models. **82i:80013b**

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(*with* Varma, Arvind) Steady-state and dynamic behavior of fast gas-liquid reactions in nonadiabatic continuous stirred tank reactors. **82c:80023**

Hynes, James T. *See* **Grote, Richard F., 82d:80029**; **Northrup, Scott H., 82i:80013a** *and* **Grote, Richard F., 82i:80013b**

Iwamoto, Kazutoshi (*with* Senō, Manabu) On a model chemical system showing competitive phenomena. **82d:80030**

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Keyfitz, Barbara Lee *See* **Golubitsky, Martin, 82i:80010** *and* **82i:80011**

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Pismen, L. M. Bifurcation into wave patterns and turbulence in reaction-diffusion equations. **82e:80011**

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Raschman, Pavel (*with* Kubíček, Milan; Marek, Miloš) Waves in distributed chemical systems: experiments and computations. **82h:80023**

Reynolds, J. F. *See* **Dunstan, F. D. J., 82b:80020**

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Schaeffer, David G. *See* **Golubitsky, Martin; et al., 82i:80011**

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Seelig, Friedrich Franz Unrestricted harmonic balance. A general method to evaluate periodic structures in time and/or space of arbitrary stability for nonlinear chemical reaction-diffusion systems. I. Theory and computer program for time-dependent systems. **82h:80024**

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Socha, Lesław Application of open-loop control for determining the optimal temperature distributions in chemical reactors in the presence of stochastic noise. (Polish. Russian and English summaries) **82c:80025**

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Tombesi, P. *See* **de Pasquale, F.; et al., 82b:80022**

Tóth, János (*with* Hárs, Vera) On the inverse problems of compartment systems. (Hungarian. English summary) **82d:80036**

Tyson, John J. (*with* Fife, Paul C.) Target patterns in a realistic model of the Belousov-Zhabotinskii reaction. **82a:80004**

Varma, Arvind *See* **Huang, Daniel T.-J., 82c:80023** *and* **Huang, Daniel T.-J., 82i:80012**

Varon, R. *See* **Galvez, J., 82m:80006a**; **82m:80006b** *and* **82m:80006c**

Vatsya, S. R. (*with* Pritchard, H. O.) Some analytic properties of the master equation for unimolecular reaction. **82m:80007**

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Wang, Zhong An investigation of mathematical methods in inhomogeneous phase chemical engineering. (Chinese) **82m:80008**

Weiland, R. H. *See* **Do, Duong Dang, 82d:80028**

Yamada, Tomoji *See* **Fujisaka, H., 82e:80010**

Ždanov, V. P. On the disturbance of Maxwellian distribution of velocity in bimolecular reactions. (Russian) **82i:80014**

secondary classifications:

Antonov-Romanovskiĭ, V. V. Recombinational kinetics of decay in the initial pair correlation of particles. (Russian) **(82f:82035)**

Aris, Rutherford *See* **Kennedy, Clinton R., (82b:34053)**

Bachelart, S. *See* **Roux, J.-C.; et al., (82h:58028)** *and* **(82i:92010)**

Blomberg, C. Some properties of stochastic equations for coupled chemical reactions far from equilibrium. **(82e:82009)**

Braddock, R. D. *See* **Parlange, J.-Y., (82c:35037)**

Brauner, C. M. (*with* Nicolaenko, B.) Internal layers and free boundary problems. **(82a:35009)**

van den Broeck, C. *See* **Malek-Mansour, M.; et al., (82d:82042)**

Broomhead, D. (*with* McCreadie, G.; Rowlands, G.) On the analytic derivation of Poincaré maps—the forced Brusselator problem. **(82h:92012)**

Burschka, M. A. (*with* Titulaer, U. M.) The kinetic boundary layer for the Fokker-Planck equation with absorbing boundary. **(82j:82071)**

Busse, H.-G. (*with* Havsteen, B. H.) Nonlinear oscillations in chemical networks as symmetries of transformation groups. **(82e:58082)**

(*with* Havsteen, B. H.) Network structure of a system coded by groups. **(82c:92008)**

Bykov, V. I. *See* **Gorban', A. N.; et al., (82g:92017)**

Cloutman, Lawrence D. *See* **Ramshaw, John D., (82d:65083)**

Cohen, Donald S. (*with* Rosenblat, S.) Flickering and thermal flicker waves on catalytic wires and gauzes and in chemical reactors. **(82a:80001)**

Dai, Lo Sheng On the existence of limit cycles for the enzyme-catalyzed hydrolysis reaction in a zero-dimensional representation of a membrane. **(82b:34051)**

Daido, Hiroaki *See* **Tomita, Kazuhisa, (82c:58045)**

Dimitrovski, Dragan S. (*with* Lazarevska, Liljana) An elementary treatment of chemical differential equations. (Macedonian. French summary) **(82b:34003)**

Ermentrout, G. Bard (*with* Rinzel, John) Waves in a simple, excitable or oscillatory, reaction-diffusion model. **(82k:35061)**

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Fritzsch, G. *See* **Seshadri, M. S., (82m:92036)**

Gajewski, H. (*with* Zacharias, K.) On a system of diffusion-reaction equations. (German and Russian summaries) **(82k:35062)**

Gapeeva, N. V. *See* **Maslennikova, V. N., (82m:35076)**

Gerasimenko, V. I. *See* **Petrina, D. Ja.; et al., (82e:92018)**

Golubitsky, Martin (*with* Keyfitz, Barbara Lee; Schaeffer, David G.) A singularity theory analysis of a thermal-chainbranching model for the explosion peninsula. **(82h:58010)**

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Haag, G. (*with* Hanggi, Peter) Continued fraction solutions of discrete master equations not obeying detailed balance. II. **(82h:82013)**

Hanggi, Peter *See* **Haag, G., (82h:82013)**

Havsteen, B. H. *See* **Busse, H.-G., (82c:92008)** *and* **(82e:58082)**

Heinemann, R. F. (*with* Poore, A. B.) Hopf bifurcation computations for distributed parameter systems. **(82a:35012)**

Hofbauer, Josef (*with* Schuster, Peter; Sigmund, Karl; Wolff, Robert) Dynamical systems under constant organization. II. Homogeneous growth functions of degree $p=2$. **(82h:34035a)**

(*with* Schuster, Peter; Sigmund, Karl) Competition and cooperation in catalytic self-replication. **(82h:92062)**

Holmberg, Andrea A systems engineering approach to biotechnical processes—experiences of modelling, estimation and control methods. **(82k:92064)**

Horsthemke, Werner *See* **Kitahara, Kazuo; et al., (82b:60107)**

Howard, Louis N. *See* **Kopell, Nancy, (82j:35085)**

Inaba, Yutaka *See* **Kitahara, Kazuo; et al., (82b:60107)**

Ingarden, Roman Stanisław *See* **Jaworski, W., (82k:82039)**

Ivanović, Lav Cyclic processes. (Serbo-Croatian) **(82j:92025)**

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Kennedy, Clinton R. (*with* Aris, Rutherford) Bifurcations of a model diffusion-reaction system. **(82b:34053)**

Keyfitz, Barbara Lee *See* **Golubitsky, Martin; et al., (82h:58010)**

Kitahara, Kazuo (*with* Horsthemke, Werner; Lefever, René; Inaba, Yutaka) Phase diagrams of noise induced transitions—exact results for a class of external coloured noise. **(82b:60107)**

Kondepudi, D. K. Bifurcation, symmetry and the influence of an electric field on chemical dissipative structures. **(82g:92064)**

Kopell, Nancy (*with* Howard, Louis N.) Target patterns and horseshoes from a perturbed central-force problem: some temporally periodic solutions to reaction-diffusion equations. **(82j:35085)**

Lakshmikantham, V. Some problems of reaction-diffusion equations. **(82g:35053)**

Larter, R. (*with* Schmidt, S.; Ortoleva, Peter) Electrical effects in nonlinear physico-chemical systems: field chemical wave interaction and bio-self electrophoresis. (*See* **82k:00028**)

Lazarevska, Liljana *See* **Dimitrovski, Dragan S., (82h:34003)**

Lefever, René *See* **Kitahara, Kazuo; et al., (82b:60107)**

Leggett, Richard W. *See* **Williams, Lynn R., (82k:34020)**

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Maslennikova, V. N. (*with* Gapeeva, N. V.) A problem with a directional derivative for multicomponent diffusion and chemical kinetics systems. (Russian) **(82m:35076)**

McCreadie, G. *See* **Broomhead, D.; et al., (82h:92012)**

Mitsui, Taketomo The initial-value adjusting method for problems of the least squares type of ordinary differential equations. **(82b:65071)**

Möhring, K. (*with* Smilansky, U.) Semiclassical evaluation of inclusive transition probabilities. **(82f:81028)**

Mork, K. J. *See* **Razi Naqvi, K.; et al., (82c:82117)**

Nicolaenko, B. *See* **Brauner, C. M., (82a:35009)**

Nicolis, G. *See* **Malek-Mansour, M.; et al., (82d:82042)**

Ortoleva, Peter Dynamic Padé approximant and behavior singularities in nonlinear physico-chemical systems. **(82k:58076)**

See also **Feeney, R.; et al., (82h:92013)** *and* **Larter, R.; et al.,** (*See* **82k:00028**)

Parlange, J.-Y. (*with* Braddock, R. D.) A note on some similarity solutions of the diffusion equation. (French summary) **(82c:35037)**

Peregudov, A. N. Asymptotic behavior of the solution of the second boundary value problem for a quasilinear parabolic system of chemical kinetics. (Russian) **(82m:35079)**

Peterson, William (*with* Verhoff, Frank) Properties of an integral equation describing enzyme activity. **(82j:92030)**

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Ramshaw, John D. (*with* Cloutman, Lawrence D.) Numerical method for partial equilibrium flow. **(82d:65083)**

Razi Naqvi, K. (*with* Waldenstrøm, S.; Mork, K. J.) Unification of the methods of Onsager and Monchick for calculating the probabilities of various fates in diffusion-controlled reactions, with applications to diffusion in space and in a plane. **(82c:82117)**

Rinzel, John *See* **Ermentrout, G. Bard, (82k:35061)**

Rosenblat, S. *See* **Cohen, Donald S., (82a:80001)**

Rossi, A. *See* **Roux, J.-C.; et al., (82h:58028)** *and* **(82i:92010)**

Roux, J.-C. (*with* Rossi, A.; Bachelart, S.; Vidal, Christian) Representation of a strange attractor from an experimental study of chemical turbulence. **(82h:58028)**

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Rowlands, G. *See* **Broomhead, D.; et al., (82h:92012)**

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Schaeffer, David G. *See* **Golubitsky, Martin; et al., (82h:58010)**

Schmidt, S. L. *See* **Feeney, R.; et al., (82h:92013)** *and* **Larter, R.; et al.,** (*See* **82k:00028**)

Schuster, Peter (*with* Sigmund, Karl; Wolff, Robert) Dynamical systems under constant organization. III. Cooperative and competitive behavior of hypercycles. **(82h:34035b)**

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Sengupta, S. Effect of rotation on a heated horizontal layer of dissociating fluid. **(82d:76040)**

Seshadri, M. S. (*with* Fritzsch, G.) The time evolution of sequential enzyme reactions: a singular perturbation approach. **(82m:92036)**

Sigmund, Karl *See* **Hofbauer, Josef; et al., (82h:34035a); Schuster, Peter; et al., (82h:34035b); (82c:92012)** *and* **Hofbauer, Josef; et al., (82h:92062)**

Smilansky, U. *See* **Möhring, K., (82f:81028)**

Smoes, Marie-Luce The autonomous Bautin system and some nonautonomous applications to chemical oscillations. **(82a:34049)**

Sperb, René P. Comparison results in a class of reaction-diffusion problems. (German summary) **(82f:35009)**

Srivastava, S. K. *See* **Srivastava, Sudha, (82d:92010)**

Srivastava, Sudha (*with* Srivastava, S. K.) Few aspects on thermodynamics of chemical relaxation process. **(82d:92010)**

Steeb, W.-H. (*with* Wilhelm, F.) Nonlinear autonomous systems of differential equations and Carleman linearization procedure. **(82h:34012)**

Stewart, Ian Bifurcation and hysteresis varieties for the thermal-chainbranching model with a negative modal parameter. **(82g:58018)**

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Toma, Ileana A method for solving polynomial differential equations with applications to the mathematical model concerning Belousov-Zhabotinskii chemical reaction. **(82m:35083)**

Tomita, Kazuhisa (*with* Daido, Hiroaki) Possibility of chaotic behaviour and multibasins in forced glycolytic oscillations. **(82c:58045)**

(*with* Tsuda, Ichiro) Towards the interpretation of Hudson's experiment on the Belousov-Zhabotinsky reaction—chaos due to delocalization. **(82f:58063)**

Tsuda, Ichiro *See* **Tomita, Kazuhisa, (82f:58063)**

Turner, J. W. *See* **Malek-Mansour, M.; et al., (82d:82042)**

Ueyama, Hiroshi Fluctuating hydrodynamic equations of mixed and of chemically reacting gases. **(82a:82029)**

Verhoff, Frank *See* **Peterson, William, (82j:92030)**

Vidal, Christian *See* **Roux, J.-C.; et al., (82h:58028)** *and* **(82i:92010)**

Waldenstrøm, S. *See* **Razi Naqvi, K.; et al., (82c:82117)**

Wang, Ching Hua *See* **Ying, Long An, (82k:35076)**

White, Warren H. A global existence theorem for Smoluchowski's coagulation equations. **(82c:34016)**

Wilhelm, F. *See* **Steeb, W.-H., (82h:34012)**

Williams, Lynn R. (*with* Leggett, Richard W.) Unique and multiple solutions of a family of differential equations modeling chemical reactions. **(82k:34020)**

Wolff, Robert *See* **Hofbauer, Josef; et al., (82h:34035a); Schuster, Peter; et al., (82h:34035b)** *and* **(82c:92012)**

Ying, Long An (*with* Wang, Ching Hua) The discontinuous initial value problem of a reacting gas flow. **(82k:35076)**

Zacepin, S. V. *See* **Sazonov, V. N., (82b:82019)**

Zacharias, K. *See* **Gajewski, H., (82k:35062)**

Zaera, F. (*with* Rusinek, Isak) Monte Carlo simulation for inhomogeneous chemical kinetics: application to the Belousov-Zhabotinskii reaction. **(82j:92038)**

Zhou, Guo Cheng Two new schematic rules for rate laws of enzyme-catalysed reactions. **(82j:92039)**

80A32 Chemically reacting flows [See also 92A09, 92A40.]

Agranat, V. M. (*with* Grišin, A. M.) Qualitative analysis of unsteady heat and mass transfer modes in a boundary layer with chemical reactions and intensive injections. **82j:80007**

Elghobashi, S. E. *See* **Megahed, I. E. A., 82h:80010**

Grišin, A. M. *See* **Agranat, V. M., 82j:80007**

Megahed, I. E. A. (*with* Elghobashi, S. E.) On the numerical solution of indeterminate steady elliptic flows. **82h:80010**

secondary classifications:

Babenko, K. I. (*with* Ivanova, V. N.; Kosorukov, A. L.; Radvogin, Ju. B.) Supersonic flow around smooth bodies with regard for chemical reactions that are not in equilibrium. (Russian) **(82j:65069)**

Belincev, B. N. (*with* Livšic, M. A.; Vol'kenštein, M. V.) Pattern formation in systems with nonlocal interactions. **(82m:92020)**

Dalle-Vedove, Walter (*with* Sanfeld, Albert) Instabilité hydrodynamique interfaciale induite par une réaction enzymatique non autocatalytique. (English summary)

[Interfacial hydrodynamic instability induced by a nonautocatalytic enzyme reaction] **(82m:92021)**

DeLisi, Charles *See* **Thakur, Ajit K., (82k:92035)**
Gapeeva, N. V. *See* **Maslennikova, V. N., (82m:35076)**
Ivanova, V. N. *See* **Babenko, K. I.; et al., (82j:65069)**
Kosorukov, A. L. *See* **Babenko, K. I.; et al., (82j:65069)**
Livšic, M. A. *See* **Belincev, B. N.; et al., (82m:92020)**
Maslennikova, V. N. (*with* Gapeeva, N. V.) A problem with a directional derivative for multicomponent diffusion and chemical kinetics systems. (Russian) **(82m:35076)**
Nagnibeda, E. A. (*with* Rydalevskaja, M. A.) Equations of a nonequilibrium mixture of viscous dissociable gases. (Russian) **(82d:76074)**
Ni, A. L. (*with* Ryžov, O. S.) Transonic flows of a multicomponent relaxing mixture through a Laval nozzle. (Russian) **(82d:76060)**
Nichol, L. W. *See* **Sculley, M. J.; et al., (82f:92018)**
Radvogin, Ju. B. *See* **Babenko, K. I.; et al., (82j:65069)**
Razževaikin, V. N. On the rise of dissipative structures in a system of two reaction-diffusion equations. (Russian) **(82m:35080)**
Rinzel, John Impulse propagation in excitable systems. **(82f:92017)**
Rydalevskaja, M. A. *See* **Nagnibeda, E. A., (82d:76074)**
Ryžov, O. S. *See* **Ni, A. L., (82d:76060)**
Sanfeld, Albert *See* **Dalle-Vedove, Walter, (82m:92021)**
Sculley, M. J. (*with* Nichol, L. W.; Winzor, D. J.) Interactions between micellar ligand systems and acceptors: forms of binding curves. **(82f:92018)**
Sengupta, S. Effect of rotation on a heated horizontal layer of dissociating fluid. **(82d:76040)**
Thakur, Ajit K. (*with* DeLisi, Charles) Fluctuation analysis in small chemically reacting systems. **(82k:92035)**
Vol'kenštein, M. V. *See* **Belincev, B. N.; et al., (82m:92020)**
Winzor, D. J. *See* **Sculley, M. J.; et al., (82f:92018)**

80A35 Mathematically heuristic classical thermodynamics (must also be assigned at least one other classification number in this section)

secondary classifications:

Hasegawa, Hiroshi (*with* Nakagomi, Teruaki; Mabuchi, M.; Kondo, Kazuo) Nonequilibrium thermodynamics of lasing and bistable optical systems. **(82a:82022)**
Kondo, Kazuo *See* **Hasegawa, Hiroshi; et al., (82a:82022)**
Mabuchi, M. *See* **Hasegawa, Hiroshi; et al., (82a:82022)**
Nakagomi, Teruaki *See* **Hasegawa, Hiroshi; et al., (82a:82022)**

80A99 Miscellaneous topics

Cardin, Franco On pocket and empirical temperatures. An alternative choice for the heat flux vector in Eckart's relativistic thermodynamics. **82e:80012**

secondary classifications:

Gariel, J. Un nouvel effet couplé en thermodynamique relativiste locale des phénomènes irréversibles. (English summary) **(82i:83004)**
Iannece, Donatella (*with* Romano, Antonio; Starita, Giulio) An approach to thermodynamics of materials with fading memory. **(82d:73006)**
Mishra, Ratan Shanker (*with* Quaraishi, R.) Collineation and motion in relativistic thermodynamics. **(82c:83050)**
Morro, Angelo From microscopic to macroscopic reversibility. (Italian summary) **(82f:73008)**
Quaraishi, R. *See* **Mishra, Ratan Shanker, (82c:83050)**
Romano, Antonio *See* **Iannece, Donatella; et al., (82d:73006)**
Starita, Giulio *See* **Iannece, Donatella; et al., (82d:73006)**

81-XX QUANTUM MECHANICS

81-01 Elementary exposition, textbooks

(Abonyi, Iván) *See* **von Neumann, John, 82i:81001**
Beresteckiĭ, V. B. (*with* Lifšic, E. M.; Pitaevskiĭ, L. P.) ★Теоретическая физика ("Ландау-Лифшиц"). Том IV. (Russian) [Theoretical physics ("Landau-Lifšic"). Vol. IV] **82g:81001**
Gerlich, Gerhard ★Eine neue Einführung in die statistischen und mathematischen Methoden der Quantentheorie. (German) [A new introduction to the statistical and mathematical methods of quantum theory] **82e:81001**
(Landau, L. D.) *See* **Beresteckiĭ, V. B.; et al., 82g:81001**
Lifšic, E. M. *See* **Beresteckiĭ, V. B.; et al., 82g:81001**
von Neumann, John ★A kvantummechanika matematikai alapjai. (Hungarian) [Mathematical foundations of quantum mechanics] **82i:81001**
Normand, Jean-Marie ★A Lie group: rotations in quantum mechanics. **82h:81001**
de la Peña, Luis ★Introducción a la mecánica cuántica. (Spanish) [Introduction to quantum mechanics] **82i:81002**
Pitaevskiĭ, L. P. *See* **Beresteckiĭ, V. B.; et al., 82g:81001**
(Sebestyén, Ákos) *See* **von Neumann, John, 82i:81001**
Winter, Rolf G. ★Quantum physics. **82i:81003**

secondary classifications:

Corson, Edward Michael ★Introduction to tensors, spinors, and relativistic wave-equations. **(82m:01079)**
Tolmačev, V. V. ★Квази-классическое приближение в квантовой механике. (Russian) [Quasiclassical approximation in quantum mechanics] **(82g:81019)**

81-02 Advanced exposition (research surveys, monographs, etc.)

Burzyńska, Maria (*with* Burzyński, Andrzej) Advanced formalisms of quantum mechanics. (Polish. English summary) **82f:81001**
Burzyński, Andrzej *See* **Burzyńska, Maria, 82f:81001**
Economou, E. N. ★Green's functions in quantum physics. **82j:81001**
Filippov, A. T. Nontrivial solutions of nonlinear problems of field theory. (Russian. English summary) **82a:81001**
Itzykson, Claude (*with* Zuber, Jean Bernard) ★Quantum field theory. **82h:81002**
Kramer, Peter (*with* Saraceno, Marcos) ★Geometry of the time-dependent variational principle in quantum mechanics. **82m:81001**
Saraceno, Marcos *See* **Kramer, Peter, 82m:81001**
Schulman, Lawrence S. ★Techniques and applications of path integration. **82h:81003**
Śniatycki, Jędrzej ★Geometric quantization and quantum mechanics. **82b:81001**
Zuber, Jean Bernard *See* **Itzykson, Claude, 82h:81002**

secondary classifications:

Blakemore, Carroll F. Modern mathematical techniques in theoretical physics. **(82c:00013)**
Bullough, Robin K. Solitons: inverse scattering theory and its applications. **(82m:35124)**
See also **Solitons, (82m:35001)**
(Carter, S. R.) *See* **Poston, Tim; et al., (82i:58019)**
(Caudrey, Philip J.) *See* **Solitons, (82m:35001)**
(Černavskiĭ, A. V.) *See* **Poston, Tim; et al., (82i:58019)**
Jaffe, Arthur (*with* Taubes, Clifford Henry) ★Vortices and monopoles. **(82m:81051)**
John, Gero *See* **Kramer, Peter; et al., (82m:81085)**
Konopleva, N. P. (*with* Popov, V. N.) ★Калибровочные поля. (Russian) [Gauge fields] **(82k:81043)**
Kramer, Peter (*with* John, Gero; Schenzle, Dieter) ★Group theory and the interaction of composite nucleon systems. **(82m:81085)**
(Olsen, D. R.) *See* **Poston, Tim; et al., (82i:58019)**
Popov, V. N. *See* **Konopleva, N. P., (82k:81043)**
Poston, Tim (*with* Stewart, Ian) ★Теория катастроф и ее приложения. (Russian) [Catastrophe theory and its applications] **(82i:58019)**
(Rockwood, A.) *See* **Poston, Tim; et al., (82i:58019)**
Schenzle, Dieter *See* **Kramer, Peter; et al., (82m:81085)**
Stewart, Ian *See* **Poston, Tim, (82i:58019)**
Taubes, Clifford Henry *See* **Jaffe, Arthur, (82m:81051)**
Solitons ★Solitons. **(82m:35001)**

81-03 Historical (must also be assigned at least one classification number from Section 01)

Glashow, Sheldon Lee Towards a unified theory: threads in a tapestry. **82d:81001c**
Kastler, Alfred Albert Einstein and the photon concept. (*See* **82b:83002**)
Kuhn, Thomas S. ★Black-body theory and the quantum discontinuity, 1894–1912. **82b:81002**
(Landé, Alfred) *See* **Perspectives in quantum theory, 82d:81002**
(van der Merwe, Alwyn) *See* **Perspectives in quantum theory, 82d:81002**
Salam, Abdus Gauge unification of fundamental forces. **82d:81001b**
See also **Ynduráin, F. J., 82d:81001d**
Weinberg, Steven Conceptual foundations of the unified theory of weak and electromagnetic interactions. **82d:81001a**
Ynduráin, F. J. A letter to the editor: "Gauge unification of fundamental forces" by Salam. **82d:81001d**
(Yourgrau, Wolfgang) *See* **Perspectives in quantum theory, 82d:81002**
Yukawa, Hideki ★Scientific works. **82b:81003**
Biography:
Yukawa, Hideki *See* **Yukawa, Hideki, 82b:81003**
Perspectives in quantum theory ★Perspectives in quantum theory. **82d:81002**
Quantum theory ★Perspectives in quantum theory. **82d:81002**

secondary classifications:

(Abonyi, Iván) *See* **von Neumann, John, (82i:81001)**
(Alihan'jan, A. I.) *See* **Bessarab, M. Ja., (82c:01045)**
Bessarab, M. Ja. ★Ландау. (Russian) [Landau] **(82c:01045)**
(Brodbeck, May) *See* **Schlick, Moritz, (82h:03021b)**
Bullough, Robin K. (*with* Caudrey, Philip J.) The soliton and its history. (*See* **82m:35001**)
Carazza, B. (*with* Guidetti, G. P.) The origin of the Klein-Gordon equation. (Italian) **(82f:01060)**
Caudrey, Philip J. *See* **Bullough, Robin K., (*See* 82m:35001)**
Chern, Shiing Shen Geometry and physics. **(82j:53121)**
Costa de Beauregard, Olivier The 1927 Einstein and 1935 EPR paradox. (Italian summary) **(82f:01061)**
Dirac, Paul Adrien Maurice The relativistic electron wave equation. **(82i:01036)**
(Einstein, Albert) *See* **Nisio, Sigeko, (82d:01020); Ogawa, Tsuyoshi, (82d:01021); Albert Einstein: philosopher and scientist, (82e:01077)** *and* **El'jaševič, M. M., (82g:01031)**
El'jaševič, M. M. Einstein's part in the development of quantum concepts. **(82g:01031)**
(Feigl, Herbert) *See* **Schlick, Moritz, (82b:03021a)** *and* **(82b:03021b)**
(Gauß, Carl Friedrich) *See* **Klingenberg, Wilhelm, (82d:01016)**
Guidetti, G. P. *See* **Carazza, B., (82f:01060)**
(Hartmann, Hans) *See* **Albert Einstein: philosopher and scientist, (82e:01077)**
(Heath, Peter) *See* **Schlick, Moritz, (82b:03021a)** *and* **(82b:03021b)**
Hendry, John The development of attitudes to the wave-particle duality of light and quantum theory, 1900–1920. **(82f:01063)**
Weimar culture and quantum causality. **(82h:01077)**
Hora, Heinrich Einstein's photon distribution for blackbodies and the discovery of the laser. **(82i:82003)**

Hund, Friedrich Die Rolle des Dualismus Welle-Teilchen beim Werden der Quantentheorie. **(82b:01020)**
Jost, Res Boltzmann und Planck: die Krise des Atomismus um die Jahrhundertwende und ihre Überwindung durch Einstein. **(82d:01015)**
Karlov, N. V. (*with* Prohorov, A. M.) Quantum electronics and Einstein's theory of radiation. **(82b:01030)**
Klein, Martin J. No firm foundation: Einstein and the early quantum theory. (*See* **82d:83002**)
Klingenberg, Wilhelm Die Bedeutung von Gauß für die Entwicklung der Geometrie. **(82d:01016)**
Kragh, Helge The genesis of Dirac's relativistic theory of electrons. **(82m:01046)**
Kuhn, Thomas S. Einstein's critique of Planck. (*See* **82d:83002**)
(Landau, L. D.) *See* **Bessarab, M. Ja., (82c:01045)**
Maison, Adam Critical remarks on chemical electrodynamics and the theory of solutions. (Polish. English, French, German and Russian summaries) **(82m:78001)**
(Mostepanenko, A. M.) *See* **Quantum mechanics and the theory of relativity, (82g:81003)**
(Mulder, Henk L.) *See* **Schlick, Moritz, (82b:03021a)** *and* **(82b:03021b)**
von Neumann, John ★A kvantummechanika matematikai alapjai. (Hungarian) [Mathematical foundations of quantum mechanics] **(82i:81001)**
Nisio, Sigeko The transmission of Einstein's work to Japan. **(82d:01020)**
Ogawa, Tsuyoshi Japanese evidence for Einstein's knowledge of the Michelson-Morley experiment. **(82d:01021)**
Pais, Abraham Einstein on particles, fields, and the quantum theory. (*See* **82d:83002**)
(Pauli, Wolfgang) *See* **Richter, Steffen, (82i:01060)**
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Richter, Steffen ★Wolfgang Pauli. (German) **(82i:01060)**
Salam, Abdus Einstein's last dream: the space-time unification of fundamental forces. (*See* **82k:01046**)
Sarangov, C. S. Passage to the limit as analogy. (Russian. English summary) **(82i:00023)**
(Schilpp, Paul Arthur) *See* **Albert Einstein: philosopher and scientist, (82e:01077)**
Schlick, Moritz ★Philosophical papers. Vol. I. 1909-1922. **(82b:03021a)**
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Relativity ★Квантовая механика и теория относительности. (Russian) [Quantum mechanics and the theory of relativity] **(82g:81003)**

81–04 Explicit machine computation and programs (not the theory of computation or programming)

Grišin, V. E. (*with* Katyšev, Ju. V.; Mahaldiani, N. V.; Švačka, A. B.) Interaction dynamics and nontopological soliton stability in an essentially nonlinear model of a complex scalar field. **82a:81002**
Katyšev, Ju. V. *See* **Grišin, V. E.; et al., 82a:81002**
Mahaldiani, N. V. *See* **Grišin, V. E.; et al., 82a:81002**
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secondary classifications:

Alvarez, A. (*with* Carreras, B.) Interaction dynamics for the solitary waves of a nonlinear Dirac model. **(82m:81010)**
Calmet, J. (*with* Visconti, A.) Computing methods in quantum electrodynamics. **(82d:81186)**
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Fucito, F. (*with* Marinari, E.; Parisi, Giorgio; Rebbi, C.) A proposal for Monte Carlo simulations of fermionic systems. **(82h:81045)**
Greensite, J. (*with* Lautrup, B.) First-order phase transition in four-dimensional SO(3) lattice gauge theory. **(82g:81079)**
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81–06 Proceedings, conferences, etc.

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(Toraldo di Francia, G.) *See* **Problems in the foundations of physics, 82m:81003**
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★Mathematical aspects of quantum field theory. Part II. **82i:81004b**
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Soviet-American, Soliton Theory ★Soliton theory. **82k:81002**
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(Narlikar, Jayant V.) *See* **Gravitation, quanta and the universe, (82d:83005)**
(Prasanna, A. R.) *See* **Gravitation, quanta and the universe, (82d:83005)**
(Sáenz, Albert W.) *See* **Mathematical methods and applications of scattering theory, (82h:81117)**
(Vishveshwara, C. V.) *See* **Gravitation, quanta and the universe, (82d:83005)**
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Conceptual Implications of Quantum Physics ★Les implications conceptuelles de la physique quantique. (French) [Conceptual implications of quantum physics] **(82j:81002)**
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Aharonov, Y. (*with* Albert, David Z.; Au, C. K.) New interpretation of the scalar product in Hilbert space. **82m:81004a**
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Davis, Michael J. (*with* Stechel, Ellen B.; Heller, Eric J.) Quantum dynamics in classically integrable and nonintegrable regions. **(82d:81038)**
Dravecký, Jozef (*with* Šipoš, Ján) On the additivity of Gudder integral. (Russian summary) **(82h:28009)**
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Gerlich, Gerhard ★Eine neue Einführung in die statistischen und mathematischen Methoden der Quantentheorie. (German) [A new introduction to the statistical and mathematical methods of quantum theory] **(82e:81001)**
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Greenspan, Donald A new computer approach to the modeling of atoms, ions and molecules. I. Hydrogen. **(82i:81162)**
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MacKinnon, Edward Scientific realism: the new debates. **(82m:03010)**
McFarlane, Keith (*with* Wan, Kay Kong) On certain local observables generated by the momenta. **(82a:81019)**
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O'Connell, R. F. (*with* Wigner, Eugene P.) Position operators for systems exhibiting the special relativistic relation between momentum and velocity. **(82f:81100)**
Putnam, Hilary ★Philosophical papers. Vol. 1. **(82c:01071a)**
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Aerts, Dirk Subsystems in physics described by bilinear maps between the corresponding vector spaces. **82c:81005**
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Piron, C. A first lecture on quantum mechanics. **82h:81013**
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Wolff, Ulli A quaternion quantum system. **82g:81008**
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Alda, Václav On 0-1 measure for projectors. (Czech summary) **(82f:06020a)**
On 0-1 measure for projectors. II. (Czech summary) **(82f:06020b)**
Aprile, Giuseppe A modal inferential calculus with two levels. (Italian) **(82m:03042b)**
Burghardt, F. J. Modal quantum logic and its dialogic foundation. **(82i:03074)**
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Dvurečenskij, Anatolij On a sum of observables in a logic. (Russian summary) **(82d:03099)**
(*with* Pulmannová, Sylvia) On the sum of observables in a logic. (Russian summary) **(82f:03058)**
Friedman, Michael (*with* Putnam, Hilary) Quantum logic, conditional probability, and interference. **(82g:03108)**
Gudder, Stanley P. (*with* Michel, John R.) Representations of Baer *-semigroups. **(82j:20127)**
Hardegree, Gary M. The conditional in abstract and concrete quantum logic. **(82h:03110)**
Material implication in orthomodular (and Boolean) lattices. **(82f:03060)**
An axiom system for orthomodular quantum logic. **(82f:03061)**
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Mittelstaedt, Peter ★Quantum logic. **(82g:03109)**
Ochs, Wilhelm The set of all projective limits of a projective system of state operators. **(82e:46082)**
Pták, Pavel Realcompactness and the notion of observable. **(82g:28009)**
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Riečan, Beloslav The measure extension theorem for subadditive probability measures in orthomodular σ-continuous lattices. **(82m:28013)**
Vrábel, Peter The measure extension theorem for subadditive measures in σ-continuous logics. (Russian summary) **(82i:28011)**
von Weizsäcker, C. F. Binary alternatives and space-time structure. **(82a:83060)**

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Bugajski, Slawomir A remark on joint probability distributions for quantum observables. **82c:81008**
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Ghirardi, G. C. (*with* Omero, C.; Rimini, A.; Weber, Tullio) Quantum dynamical semigroups description of decay processes and Zeno's paradox in quantum mechanics. (*See* **82h:81004**)
Horwitz, L. P. (*with* Rotbart, F. C.) Nonrelativistic limit of relativistic quantum mechanics. **82i:81014**
Kapuścik, È. On nonassociative algebras of quantum-mechanical observables. **82h:81015**
Nadžakov, E. Quantum system lifetimes and measurement perturbations. (Russian summary) **82a:81008**
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Prugovečki, Eduard Quantum spacetime operationally based on propagators for extended test particles. **82k:81009**
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Shinba, Yutaka (*with* Fukuchi, Mitsuru; Sakata, Makoto) Physical theory of measuring process. A critical review. **82i:81015**
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Benioff, Paul Quantum mechanical Hamiltonian models of discrete processes. **(82m:81034)**
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Ahmed, Shafique Potential energies of one-dimensional systems at equilibrium. (French summary) **82j:81011**
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Dmitrieva, I. K. (*with* Plindov, G. I.) Perturbation theory and hypervirial theorems for the anharmonic oscillator. **82c:81011**

Dubrovin, B. A. (*with* Novikov, S. P.) Ground states of a two-dimensional electron in a periodic magnetic field. **82i:81018**

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Jaulent, M. (*with* Jean, C.) A Schrödinger inverse scattering problem with a spectral dependence in the potential. **82i:81024**

Jean, C. *See* **Jaulent, M., 82i:81024**

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Kawata, Tutomu (*with* Sakai, Jun-ichi) Linear problems associated with the derivative nonlinear Schrödinger equation. **82e:81008**

Kim, Shoon K. Theory of involutional transformations applied to the Dirac theory of the electron. I. Remarks on the Dirac plane waves. **82c:81019a**
Theory of involutional transformations applied to the Dirac theory of the electron. II. Remarks on the Dirac-Coulomb waves. **82c:81019b**

King, Michael J. (*with* Rohrlich, Fritz) Exactly solvable eigenvalue problem with hypergeometric eigenfunctions. **82i:81025**

Kitchenside, P. W. (*with* Bullough, Robin K.; Caudrey, Philip J.) Creation of spin waves in ^{3}HeB. **82f:81012**

Klaus, Martin Some remarks on double-wells in one and three dimensions. **82i:81026**

Komarov, I. V. The Kovalevskaja basis for the hydrogen atom. (Russian. English summary) **82g:81011**

Kunz, Hervé (*with* Souillard, Bernard) Random Schrödinger operators. Some rigorous results. **82j:81017**

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Kwong, Waikwok (*with* Rosner, Jonathan L.; Schonfeld, Jonathan F.; Quigg, C.; Thacker, H. B.) Degeneracy in one-dimensional quantum mechanics. **82c:81020**

Laddomada, C. *See* **Boiti, M.; et al., 82j:81013**

Lai, C. S. Padé approximants and perturbation theory for screened Coulomb potentials. **82c:81021**

Lavrov, P. M. *See* **Bagrov, V. G.; et al., 82c:81009**

Lembra, Ju. Ja. Potentials allowing coincidence of the solutions of the Schrödinger and Hamilton-Jacobi equations. (Russian. Estonian and English summaries) **82d:81021**

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Leon, Jérôme Jp. The Dirac inverse spectral transform: kinks and boomerons. **82d:81022**
The inverse problem for a generalized Klein-Gordon system. **82h:81018**

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Zanon, D. *See* **Girardello, L.; et al., (82b:35137)**

Zhang, Qi Ren Exact solutions of the Dirac equation in pseudoscalar plane waves. **(82i:81160)**

81C10 Selfadjoint operator theory in quantum mechanics; essential selfadjointness of the Hamiltonian

Arai, Asao Selfadjointness and spectrum of Hamiltonians in nonrelativistic quantum electrodynamics. **82g:81013**

Barut, Asim O. (*with* Bracken, A. J.) Magnetic-moment operator of the relativistic electron. **82m:81017**

Behncke, Horst The Dirac equation with an anomalous magnetic moment. **82g:81014**

Bracken, A. J. *See* **Barut, Asim O., 82m:81017**

Brianzi, P. A new explicit method for an equation of Schrödinger type. II. (Italian. English summary) **82e:81010**

Brysk, H. *See* **Burnap, C.; et al., 82m:81018**

Burnap, C. (*with* Brysk, H.; Zweifel, P. F.) Dirac Hamiltonian for strong Coulomb fields. (Italian and Russian summaries) **82m:81018**

Daubechies, Ingrid On the distributions corresponding to bounded operators in the Weyl quantization. **82d:81025**

Gazdy, B. Nested Hilbert spaces, complex canonical transformations and resonances. **82k:81012**

Herman, I. A Hamiltonian defined in $L^2(\mathrm{SO}(3),\lambda)$. **82i:81031**

Hoffmann-Ostenhof, Maria (*with* Seiler, R.) Cusp conditions for eigenfunctions of n-electron systems. **82b:81023**

Hunziker, W. Schrödinger operators with electric or magnetic fields. **82c:81028**

Jona-Lasinio, G. (*with* Martinelli, F.; Scoppola, E.) New approach to the semiclassical limit of quantum mechanics. I. Multiple tunnelings in one dimension. **82k:81013**

Kalf, Hubert Nonexistence of eigenvalues of Dirac operators. **82m:81019**

Kay, Bernard S. On Klauder's pseudofree oscillator. **82d:81026**

Klaus, Martin (*with* Simon, Barry) Coupling constant thresholds in nonrelativistic quantum mechanics. I. Short-range two-body case. **82h:81028a**

(*with* Simon, Barry) Coupling constant thresholds in nonrelativistic quantum mechanics. II. Two-cluster thresholds in N-body systems. **82h:81028b**

See also **Landgren, J. J.; et al., 82f:81016b**

Lakaev, S. N. Discrete spectrum and resonances of the one-dimensional Schrödinger operator for small coupling constants. (Russian. English summary) **82c:81029**

Landgren, J. J. (*with* Rejto, P. A.) An application of the maximum principle to the study of essential selfadjointness of Dirac operators. I. **82f:81016a**

(*with* Rejto, P. A.; Klaus, Martin) An application of the maximum principle to the study of essential selfadjointness of Dirac operators. II. **82f:81016b**

(*with* Rejto, P. A.) On a theorem of Jörgens and Chernoff concerning essential selfadjointness of Dirac operators. **82j:81020**

Leinfelder, Herbert On the virial theorem in quantum mechanics. **82g:81015**

Maćkowiak, J. Best multiconfigurational approximations in the problem of N spinless particles. I. Theory. **82f:81017**

Martinelli, F. *See* **Jona-Lasinio, G.; et al., 82k:81013**

Rejto, P. A. *See* **Landgren, J. J., 82f:81016** *and* **82j:81020**

Scoppola, E. *See* **Jona-Lasinio, G.; et al., 82k:81013**

Seiler, R. *See* **Hoffmann-Ostenhof, Maria, 82b:81023**

Simon, Barry *See* **Klaus, Martin, 82h:81028a** *and* **82h:81028b**

Tikochinsky, Yoel Exact propagators for multidimensional quadratic Hamiltonians—initial value approach. **82i:81032**

Vugal'ter, S. A. (*with* Žislin, G. M.) The discrete spectrum of many-particle quantum systems which have no stable subsystems. II. (Russian) **82d:81027**

Waniewski, Jacek Theorem about completeness of quantum mechanical motion group. **82b:81024**
Žislin, G. M. *See* **Vugal'ter, S. A., 82d:81027**
Zweifel, P. F. *See* **Burnap, C.; et al., 82m:81018**

secondary classifications:

Barducci, A. (*with* Casalbuoni, R.; Dominici, D.; Lusanna, L.) Pseudoclassical description of Weyl particles. **(82g:81035)**
Ben-Artzi, Matania (*with* Devinatz, Allen) Spectral and scattering theory for the adiabatic oscillator and related potentials. **(82a:35088a)**
On the absolute continuity of Schrödinger operators with spherically symmetric, long-range potentials. I, II. **(82g:35083)**
(*with* Devinatz, Allen) Erratum: "Spectral and scattering theory for the adiabatic oscillator and related potentials". **(82a:35088b)**
Casalbuoni, R. *See* **Barducci, A.; et al., (82g:81035)**
Devinatz, Allen *See* **Ben-Artzi, Matania, (82a:35088a)** *and* **(82a:35088b)**
Dominici, D. *See* **Barducci, A.; et al., (82g:81035)**
Donnelly, Harold Eigenvalues embedded in the continuum for negatively curved manifolds. **(82b:58093)**
Éĭvazov, È. H. Selfadjointness of the Schrödinger operator with singlar potential. (Russian) **(82d:35040)**
Evans, W. D. On the spectra of Schrödinger operators with a complex potential. **(82g:35084)**
On the spectra of Schrödinger operators with a complex potential. **(82g:35085)**
Gadžiev, G. A. Theorem on the completeness of a system of eigenvectors of a two-parameter Dirac system. (Russian) **(82h:47046)**
Garipov, R. M. The spectrum of the Schrödinger operator of molecules. (Russian) **(82k:81096)**
Gesztesy, F. (*with* Mitter, H.) A note on quasiperiodic states. **(82f:81097)**
Grossmann, A. (*with* Høegh-Krohn, Raphael; Mebkhout, M.) The one particle theory of periodic point interactions. Polymers, monomolecular layers, and crystals. **(82i:81022)**
Hagedorn, George A. A time dependent Born-Oppenheimer approximation. **(82a:81040)**
Harris, B. J. On the spectrum of the periodic Dirac operator. **(82j:35109)**
Helffer, Bernard (*with* Robert, Didier) Comportement semi-classique du spectre des hamiltoniens quantiques hypoelliptiques. (English summary) **(82i:35143)**
Høegh-Krohn, Raphael *See* **Grossmann, A.; et al., (82i:81022)**
Kalf, Hubert Gauss's theorem and the selfadjointness of Schrödinger operators. **(82h:35078)**
Klaus, Martin Some remarks on double-wells in one and three dimensions. **(82i:81026)**
Kolomiĭcev, V. Ĭ. (*with* Samoĭlenko, Ju. S.) The countable selection of commuting selfadjoint operators and canonical noncommutation relations. (Russian) **(82c:47029)**
Lapidus, Michel Perturbation d'un semi-groupe par un groupe unitaire. (English summary) **(82d:47046)**
Leinfelder, Herbert (*with* Simader, Christian G.) Schrödinger operators with singular magnetic vector potentials. **(82d:35073)**
Levine, Howard A. On the positive spectrum of Schrödinger operators with long range potentials. (*See* **82k:34002**)
Levitan, B. M. (*with* Otelbaev, M. O.) Conditions for selfadjointness of the Schrödinger and Dirac operators. (Russian) **(82m:47034)**
Lusanna, L. *See* **Barducci, A.; et al., (82g:81035)**
Mebkhout, M. *See* **Grossmann, A.; et al., (82i:81022)**
Mitter, H. *See* **Gesztesy, F., (82f:81097)**
Mynbaev, K. T. Sufficient conditions for the discreteness of a spectrum of a three-dimensional Dirac operator. (Russian) **(82i:35135)**
Najman, B. Spectral properties of the operators of Klein-Gordon type. (Serbo-Croatian summary) **(82b:47042)**
Nenciu, A. (*with* Nenciu, G.) The existence of energy gaps for three-dimensional systems without long-range order. **(82d:81120)**
Nenciu, G. *See* **Nenciu, A., (82d:81120)**
Otelbaev, M. O. *See* **Levitan, B. M., (82m:47034)**
Petry, Herbert-Rainer On the confinement of magnetic poles. **(82g:81102)**
Ramm, Alexander G. (*with* Taylor, B. A.) A new proof of absence of positive discrete spectrum of the Schrödinger operator. **(82b:35112)**
Robert, Didier *See* **Helffer, Bernard, (82i:35143)**
Robnik, Marko On adiabatic invariants and continuous large-scale deformations of QM energy spectra. **(82b:81027)**
Samoĭlenko, Ju. S. *See* **Kolomiĭcev, V. Ĭ., (82c:47029)**
Schenk, Dieter Zur Resolvente des mehrdimensionalen Schrödinger-Operators. **(82h:81119)**
Simader, Christian G. *See* **Leinfelder, Herbert, (82d:35073)**
Taylor, B. A. *See* **Ramm, Alexander G., (82b:35112)**
Thirring, W. A lower bound with the best possible constant for Coulomb Hamiltonians. **(82g:81122)**

81C12 Perturbation theory for operators

Adler, Carl G. *See* **Rose, Ollie J., 82a:81013**
Aharonov, Y. *See* **Au, C. K., 82h:81030**
Alliluev, S. P. (*with* Vaĭnberg, V. M.; Eleckiĭ, V. L.; Popov, V. S.) Logarithmic perturbation theory for excited levels. (Russian) **82k:81014**
Ančiškin, D. V. On the problem of nonrelativistic approximations to the Dirac equation. (Russian. English summary) **82h:81029**
Au, C. K. A new algorithm for one-dimensional problems. **82a:81012**
(*with* Aharonov, Y.) Bound state perturbation theory for the one-space and one-time dimension Klein-Gordon equation. **82h:81030**
Perturbation theory of a Dirac particle in central fields due to scalar interactions. **82d:81028**
Avron, Joseph E. Bender-Wu formulas for the Zeeman effect in hydrogen. **82c:81030**
Bhargava, V. T. A. *See* **Mathews, P. M.; et al., 82h:81032**
Bronzan, J. B. (*with* Sugar, R. L.) Generalized moment method for eigenvalues. **82d:81029**
Burum, D. P. Magnus expansion generator. **82k:81015**
Caliceti, E. (*with* Graffi, Sandro; Maioli, M.) Perturbation theory of odd anharmonic oscillators. **82d:81030**
Driessen, P. *See* **Holt, A. R., 82d:81033**
Eleckiĭ, V. L. *See* **Popov, V. S.; et al., 82c:81032** *and* **Alliluev, S. P.; et al., 82k:81014**
(Floyd, Edward R.) *See* **Fröman, Nanny; et al., 82h:81031**
Fröman, Nanny (*with* Fröman, Per Olof) Comments on: "Higher order modified potentials for the effective phase integral approximation" [J. Math. Phys. **20** (1979), no. 1, 83–85; MR 80f:81031] by Edward R. Floyd. **82h:81031**
Fröman, Per Olof *See* **Fröman, Nanny, 82h:81031** *and* **Lakshmanan, M.; et al., 82k:81016**
Gazeau, J.-P. Technique Sturmienne pour le spectre discret de l'équation de Schroedinger. (English summary) **82d:81031**
Graffi, Sandro *See* **Caliceti, E.; et al., 82d:81030**
van Haeringen, H. (*with* Kok, L. P.) Degenerate perturbation in nonrelativistic quantum mechanics. **82d:81032**
Herbst, Ira W. (*with* Howland, James S.) The Stark ladder and other one-dimensional external field problems. **82j:81021**
Holt, A. R. (*with* Driessen, P.) Analytical angular integration of some products of hydrogenic bound-free first Born matrix elements. **82d:81033**
Howland, James S. *See* **Herbst, Ira W., 82j:81021**
Jacobs, A. E. Number of Feynman diagrams in arbitrary order of perturbation theory. **82e:81011**
Karlsson, F. *See* **Lakshmanan, M.; et al., 82k:81016**
Killingbeck, J. A polynomial perturbation problem. **82h:81025**
Renormalised perturbation series. **82d:81034**
Kitanin, A. L. *See* **Vasil'ev, A. M., 82h:81034**
Kok, L. P. *See* **van Haeringen, H., 82d:81032**
Korsch, H. J. (*with* Laurent, H.) Milne's differential equation and numerical solutions of the Schrödinger equation. I. Bound-state energies for single- and double-minimum potentials. **82m:81020a**
(*with* Laurent, H.; Möhlenkamp, R.) Milne's differential equation and numerical solutions of the Schrödinger equation. II. Complex energy resonance states. **82m:81020b**
Lakshmanan, M. (*with* Karlsson, F.; Fröman, Per Olof) Phase-integral calculation of the energy levels of a quantal anharmonic oscillator. **82k:81016**
Langouche, F. (*with* Roekaerts, D.; Tirapegui, Enrique) WKB expansions with higher order corrections: the general case. **82c:81031**
Laurent, H. *See* **Korsch, H. J., 82m:81020a** *and* **82m:81020b**
Maioli, M. *See* **Caliceti, E.; et al., 82d:81030**
Mathews, P. M. (*with* Seetharaman, M.; Raghavan, Sekhar; Bhargava, V. T. A.) A simple accurate formula for the energy levels of oscillators with a quartic potential. **82h:81032**
Milani, N. (*with* Minelli, T. A.; Pascolini, A.) An extension of Kato's perturbation theory to resonant states. (Italian summary) **82h:81033**
Minelli, T. A. *See* **Milani, N.; et al., 82h:81033**
Moats, Richard K. *See* **Silverstone, Harris J., 82e:81012**
Möhlenkamp, R. *See* **Korsch, H. J.; et al., 82m:81020b**
Morita, Akio (*with* Watanabe, Hiroshi) Use of continued fractions for the calculation of higher-order terms in a perturbation system. **82h:81026**
Müller, A. M. K. General outline of the projector variation method. **82f:81018**
Müller-Kirsten, H. J. W. Multidimensional perturbation theory, the field theory limit and vacuum tunnelling. (Italian and Russian summaries) **82i:81033**
Pascolini, A. *See* **Milani, N.; et al., 82h:81033**
Pasupathy, J. (*with* Singh, Virendra) Higher order JWKB expressions for the energy levels and the wavefunction at the origin. **82i:81034**
Popov, V. S. (*with* Eleckiĭ, V. L.; Turbiner, A. V.) Higher orders of perturbation theory and summation of series in quantum mechanics and field theory. **82c:81032**
See also **Alliluev, S. P.; et al., 82k:81014**
Raghavan, Sekhar *See* **Mathews, P. M.; et al., 82h:81032**
Redmon, Lynn T. *See* **Shavitt, Isaiah, 82g:81016**
Robnik, Marko On adiabatic invariants and continuous large-scale deformations of QM energy spectra. **82b:81027**
Roekaerts, D. *See* **Langouche, F.; et al., 82c:81031**
Rose, Ollie J. (*with* Adler, Carl G.) Closed form bound-state perturbation theory. **82a:81013**
Sabirov, R. H. On the stationary theory of perturbations in quantum mechanics. (Russian) **82d:81035**
Sahnovič, L. A. The asymptotic behavior of the spectrum of an anharmonic oscillator. (Russian. English summary) **82i:81035**
Seetharaman, M. *See* **Mathews, P. M.; et al., 82h:81032**
Shavitt, Isaiah (*with* Redmon, Lynn T.) Quasidegenerate perturbation theories. A canonical Van Vleck formalism and its relationship to other approaches. **82g:81016**
Silverstone, Harris J. (*with* Moats, Richard K.) Practical recursive solution of degenerate Rayleigh-Schrödinger perturbation theory and application to high-order calculations of the Zeeman effect in hydrogen. **82e:81012**
Singh, Virendra *See* **Pasupathy, J., 82i:81034**
Sugar, R. L. *See* **Bronzan, J. B., 82d:81029**
Tirapegui, Enrique *See* **Langouche, F.; et al., 82c:81031**
Turbiner, A. V. A new approach to the eigenvalue problem in quantum mechanics: convergent perturbation theory for rising potentials. **82i:81036**
See also **Popov, V. S.; et al., 82c:81032**
Vainberg, V. M. *See* **Alliluev, S. P.; et al., 82k:81014**
Vasil'ev, A. M. (*with* Kitanin, A. L.) Periodic perturbation of the degenerate discrete level. (Russian. English summary) **82h:81034**
Watanabe, Hiroshi *See* **Morita, Akio, 82h:81026**
Znojil, M. Symmetrically anharmonic oscillators. **82h:81035**

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Amrein, W. O. (*with* Pearson, D. B.; Wollenberg, M.) Evanescence of states and asymptotic completeness. **(82i:81124)**
Avron, Joseph E. (*with* Seiler, R.) Coincident anharmonic oscillators. **(82d:81016)**
Bender, Carl M. (*with* Mead, Lawrence R.; Simmons, L. M., Jr.) Strong-coupling expansion for the ground-state energy in the $|x|^\alpha$ potential. **(82k:81069)**
(*with* Cooper, Fred; Guralnik, G. S.; Roskies, Ralph; Sharp, David H.) Higher-order terms in the strong-coupling expansion for the renormalized effective potential. **(82k:81070)**
(*with* Cooper, Fred; Kenway, Richard; Simmons, L. M., Jr.) Continuum regulation of the strong-coupling expansion for quantum field theory. **(82k:81071)**
de Boer, W. P. H. Quantum kinetic theory of charged Klein-Gordon particles. I. Quantum distribution function. **(82c:82056a)**
Quantum kinetic theory of charged Klein-Gordon particles. II. Perturbation theory of nonequilibrium statistical Green functions. **(82c:82056b)**
Quantum kinetic theory of charged Klein-Gordon particles. III. Feynman rules and thermal equilibrium. **(82c:82056c)**
Quantum kinetic theory of charged Klein-Gordon particles. IV. Linear kinetic equation. **(82c:82056d)**
Cooper, Fred *See* **Bender, Carl M.; et al., (82k:81070)** *and* **(82k:81071)**
Cristu, M. I. *See* **Ixaru, L. Gr.; et al., (82d:81020a)**
Cycon, Hans L. On the stability of selfadjointness of Schrödinger operators under positive perturbations. **(82d:47048)**
Fragela, A. K. Perturbation of a polyharmonic operator by potentials of delta-function type. (Russian) **(82d:47049)**
Fröhlich, Jürg Unbounded, symmetric semigroups on a separable Hilbert space are essentially selfadjoint. **(82c:47044)**
Guralnik, G. S. *See* **Bender, Carl M.; et al., (82k:81070)**
Harris, Frank E. *See* **Monkhorst, Hendrik J.; et al., (82d:81178)**
Hunziker, W. Schrödinger operators with electric or magnetic fields. **(82c:81028)**
Iório, Rafael José, Jr. Perturbations of $-\Delta$ that grow at infinity in certain directions. **(82c:35060)**
Ixaru, L. Gr. (*with* Cristu, M. I.; Popa, M. S.) Choosing step sizes for perturbative methods of solving the Schrödinger equation. **(82d:81020a)**
A highly convergent perturbative method for the solution of systems of coupled equations arising from the Schrödinger equation. **(82d:81020b)**
Jafaev, D. R. Superpower decrease with respect to time of solutions of the Schrödinger equation. (Russian) **(82i:35049)**
Jeziorski, Bogumil *See* **Monkhorst, Hendrik J.; et al., (82d:81178)**
Kazakov, D. I. (*with* Širkov, D. V.) Asymptotic series of quantum field theory and their summation. **(82a:81033)**
Kenway, Richard *See* **Bender, Carl M.; et al., (82k:81071)**
Krasnopol'skiĭ, V. M. (*with* Kukulin, V. I.) The Padé approximant method for finding the Hilbert-Schmidt eigenvalues and eigenfunctions in two- and three-body problems. **(82g:81096)**
Kukulin, V. I. *See* **Krasnopol'skiĭ, V. M., (82g:81096)**
Mead, Lawrence R. *See* **Bender, Carl M.; et al., (82k:81069)**
Monkhorst, Hendrik J. (*with* Jeziorski, Bogumil; Harris, Frank E.) Recursive scheme for order-by-order many-body perturbation theory. **(82d:81178)**
Müller, A. M. K. Variational procedure yielding upper and lower bounds to eigenvalues of Hermitian operators. **(82a:49050)**
Müller, R. *See* **Müller-Kirsten, H. J. W., (82a:81041)**
Müller-Kirsten, H. J. W. (*with* Müller, R.) Explicit perturbative solution of multichannel wave equations. **(82a:81041)**
Pearson, D. B. *See* **Amrein, W. O.; et al., (82i:81124)**
Popa, M. S. *See* **Ixaru, L. Gr.; et al., (82d:81020a)**
Roskies, Ralph *See* **Bender, Carl M.; et al., (82k:81070)**
Seiler, R. *See* **Avron, Joseph E., (82d:81016)**
Sharma, C. S. *See* **Wilson, R. G., (82e:81060)**
Sharp, David H. *See* **Bender, Carl M.; et al., (82k:81070)**
Simmons, L. M., Jr. *See* **Bender, Carl M.; et al., (82k:81069)** *and* **(82k:81071)**
Širkov, D. V. *See* **Kazakov, D. I., (82a:81033)**
Summers, Stephen J. A new proof of the asymptotic nature of perturbation theory in $P(\varphi)_2$ models. **(82f:81053)**
Vieser, G. Perturbation theory at large order for the super-$(\varphi^3)_2$-model. (Italian and Russian summaries) **(82g:81111a)**
Asymptotic estimates for the massless Wess-Zumino model in four dimensions. (Italian and Russian summaries) **(82g:81111b)**
Wilson, R. G. (*with* Sharma, C. S.) Perturbation method for relativistic energies of atoms. **(82e:81060)**
Wollenberg, M. *See* **Amrein, W. O.; et al., (82i:81124)**

81C15 Perturbation theory for differential equations; WKB techniques

Ashbaugh, Mark S. (*with* Morgan, John D., III) Remarks on Turschner's eigenvalue formula. **82d:81036**
Bessis, G. *See* **Bessis-Mazloum, Nadine; et al., 82d:81037**
Bessis-Mazloum, Nadine (*with* Bessis, G.; Hadinger, G.) The perturbed ladder operator method: closed form expressions of perturbed wavefunctions and matrix elements. **82d:81037**
Bhattacharyya, Kamal (*with* Bhattacharyya, Sankar Prasad) The sign-change argument revisited. **82f:81019**
Bhattacharyya, Sankar Prasad *See* **Bhattacharyya, Kamal, 82f:81019**
Bjorken, James D. (*with* Orbach, Harry S.) WKB approximation for general matrix Hamiltonians. **82k:81017**
Crandall, R. E. (*with* Reno, Mary Hall) Ground state energy bounds for potentials $|x|^r$. **82m:81021**
Crowley, B. J. B. On the global nature of the semiclassical wavefunction describing elastic scattering in several coordinate dimensions. **82i:81037**
Gorman, Arthur (*with* Wells, Robert) A sharpening of Maslov's method for finding asymptotic solutions. **82h:81036**
Grosse, H. Quasiclassical estimates on moments of the energy levels. **82g:81017**
Hadinger, G. *See* **Bessis-Mazloum, Nadine; et al., 82d:81037**
Kesarwani, R. N. (*with* Varshni, Y. P.) Four-term WKBJ approximation and its application to Varshni V and Lennard-Jones potentials. (French summary) **82e:81013**
(*with* Varshni, Y. P.) Eigenvalues of an anharmonic oscillator. **82i:81038**
(*with* Varshni, Y. P.) The quantum pendulum in the WKBJ approximation. **82m:81022**
Killingbeck, J. Power series methods for eigenvalue calculation. **82g:81018**
Mansour, H. M. M. (*with* Müller-Kirsten, H. J. W.) Matching of WKB solutions to other solutions. **82h:81037**
Morgan, John D., III *See* **Ashbaugh, Mark S., 82d:81036**
Müller-Kirsten, H. J. W. *See* **Mansour, H. M. M., 82h:81037**
Orbach, Harry S. *See* **Bjorken, James D., 82k:81017**
Reno, Mary Hall *See* **Crandall, R. E., 82m:81021**
Richard, J. L. (*with* Rouet, A.) Complex saddle points versus dilute-gas approximation in the double-well anharmonic oscillator. **82h:81038**
Rouet, A. *See* **Richard, J. L., 82h:81038**
Tolmačev, V. V. ★Квази-классическое приближение в квантовой механике. (Russian) [Quasiclassical approximation in quantum mechanics] **82g:81019**
Varshni, Y. P. *See* **Kesarwani, R. N., 82e:81013**; **82i:81038** *and* **82m:81022**
Wells, Robert *See* **Gorman, Arthur, 82h:81036**

secondary classifications:

Anderson, Dan Gunnar (*with* Bondeson, A.; Lisak, M.) A variational approach to perturbed soliton equations. **(82d:35082)**
Bondeson, A. *See* **Anderson, Dan Gunnar; et al., (82d:35082)**
Burgan, J. R. *See* **Munier, A.; et al., (82h:81023)**
Chazarain, Jacques Comportement semi classique du spectre d'un Hamiltonien quantique. **(82b:35116)**
Datta, Kamal Kumar (*with* Rampal, Anita) Asymptotic series for wave functions and energy levels of doubly anharmonic oscillators. **(82g:81010)**
Feix, M. R. *See* **Munier, A.; et al., (82h:81023)**
Fijalkow, E. *See* **Munier, A.; et al., (82h:81023)**
Gutschick, Vincent P. *See* **Nieto, Michael Martin; et al., (82h:81074c)**
Helffer, Bernard (*with* Robert, Didier) Comportement asymptotique précisé du spectre d'opérateurs globalement elliptiques dans $\mathbf{R}^n$. (English summary) **(82b:35119)**
Jensen, Arne Schrödinger operators in the low energy limit: some recent results in $L^2(R^4)$. (*See* **82k:34002**)
Lai, C. S. Calculation of the Stark effect in hydrogen atoms by using the hypervirial relations. **(82i:81163)**
Leray, Jean Continu et discontinu; ondes et corpuscules. **(82m:58051)**
Lagrangian analysis and quantum mechanics (mathematical theory connected with asymptotic expansions and the Maslov index). (Russian) **(82h:58048)**
The meaning of Maslov's asymptotic method: the need of Planck's constant in mathematics. **(82m:58052)**
Lisak, M. *See* **Anderson, Dan Gunnar; et al., (82d:35082)**
Mizrahi, Maurice M. On the WKB approximation to the propagator for arbitrary Hamiltonians. **(82b:58037)**
Müller-Kirsten, H. J. W. Multidimensional perturbation theory for nonseparable wave equations. **(82b:35023)**
Munier, A. (*with* Burgan, J. R.; Feix, M. R.; Fijalkow, E.) Schrödinger equation with time-dependent boundary conditions. **(82h:81023)**
Nazaĭkinskiĭ, V. E. (*with* Ošmjan, V. G.; Sternin, B. Ju.; Šatalov, V. E.) Fourier integral operators and the canonical operator. (Russian) **(82h:58049)**
Nieto, Michael Martin (*with* Simmons, L. M., Jr.; Gutschick, Vincent P.) Coherent states for general potentials. VI. Conclusions about the classical motion and the WKB approximation. **(82h:81074c)**
Nishimoto, Toshihiko Uniform asymptotic properties of the WKB method. **(82m:34058)**
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Aspects of a representation of quantum theory in terms of classical probability theory by means of integration in Hilbert space. **(82c:81002)**
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(*with* Mecklenbräuker, W. F. G.) The Wigner distribution—a tool for time-frequency signal analysis. II. Discrete-time signals. **(82c:94006b)**
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Davies, Brian (*with* Burkitt, A. N.) On the relationship between quantum, random and semiclassical electrodynamics. **(82d:81188)**
Gilson, J. G. Centrifugal diffusion, negative mass and the Schrödinger equation. **(82f:81004)**
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Koroljuk, V. S. (*with* Turbin, A. F.) ★Математические основы фазового укрупнения сложных систем. (Russian) [Mathematical foundations of phase extension of complex systems] **(82a:60113)**
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Alvarez-Estrada, R. F. Rigorous approach to elastic meson-nucleon scattering in

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81C40 General group representations motivated by physics but not covered by Section 81Gxx below; representations of concrete classical groups such as $SL(n, C)$, $U(p, q)$, etc. [See also 20C35, 22E70.]

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Wells, R. O., Jr. Cohomology and the Penrose transform. **82h:81048**

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Ančiškin, D. V. On the problem of nonrelativistic approximations to the Dirac equation. (Russian. English summary) **(82h:81029)**
Barut, Asim O. On the dynamical group of the charge-monopole system. **(82i:78007)**
(*with* Bracken, A. J.) Zitterbewegung and the internal geometry of the electron. **(82k:81003)**
Battle, Guy A. Generalized analytic functions and the two-dimensional Euclidean Dirac operator. **(82k:81047)**
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Caldirola, P. Introduction of the chronon in the relativistic theory of the electron. (*See* **82b:83002**)
Coll, Bartolomé (*with* Moreno, Carlos) Sur une classe d'observateurs synchronisés attachée au laplacien d'espace-temps. (English summary) **(82h:83051)**
D'Emma, G. C. On quantization of the electromagnetic field. **(82h:81129)**
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Fuščič, V. I. A new method of investigating the group properties of systems of partial differential equations. (Russian. English summary) **(82f:58086)**
Galindo, A. Constants of motion for linear evolution systems. **(82m:58032)**
Gaveau, Bernard (*with* Trauber, Philip) Mesures et représentations non locales pour les groupes de Lie d'applications. (English summary) **(82m:22017)**
Günther, Christian Presymplectic manifolds and the quantization of relativistic particle systems. **(82j:58054)**
(Hughston, L. P.) *See* **Advances in twistor theory, (82e:83002)**
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Krause, Jorge Radiation gauge covariance. **(82m:81063)**
Krausz, Frank G. Path-integral forms for the Klein-Gordon wavefunction. **(82k:81024)**
Krée, Paul Les Lagrangiens des équations de Dirac et de H. Weyl sont des formes extérieures. (English summary) **(82i:81058)**
Kugo, Taichiro (*with* Uehara, Shozo) Massless particle with spin $j \geqslant 1$ implies the S-matrix symmetry. **(82k:81080)**
Levitskiĭ, B. A. (*with* Jappa, Ju. A.) A covariant generalization of Noether theorems for spin $\frac{1}{2}$ fields. (Russian. English summary) **(82i:83037)**
Mańka, R. The spontaneous coherent state transition in the φ^4-field model with an image mass. **(82a:81023)**
Mayer, Meinhard E. Symmetry breaking in gauge theories (geometric aspects). **(82h:81110)**
Moreno, Carlos *See* **Coll, Bartolomé, (82b:83051)**
Sogami, Ikuo Generalized Dirac equation with four orthogonal families of spin $\frac{1}{2}$ solutions. **(82j:81058)**
Steeb, W.-H. (*with* Erig, W.; Strampp, W.) Symmetries and the Dirac equation. **(82h:81024)**
Strampp, W. *See* **Steeb, W.-H.; et al., (82h:81024)**
Trauber, Philip *See* **Gaveau, Bernard, (82m:22017)**
Uehara, Shozo *See* **Kugo, Taichiro, (82k:81080)**
Vasil'ev, M. A. "Gauge" form of description of massless fields with arbitrary spin. **(82g:81109)**
(Ward, Richard Samuel) *See* **Advances in twistor theory, (82e:83002)**
Woodhouse, N. M. J. Twistor cohomology without sheaves. (*See* **82e:83002**)
Advances in twistor theory ★Advances in twistor theory. **(82e:83002)**
Twistor theory ★Advances in twistor theory. **(82e:83002)**

81D30 Coherent states

Bracken, A. J. (*with* Leemon, H. I.) A new set of coherent states for the isotropic harmonic oscillator: coherent, angular momentum states. **82h:81073**
Gutschick, Vincent P. (*with* Nieto, Michael Martin) Coherent states for general potentials. V. Time evolution. **82h:81074b**
See also **Nieto, Michael Martin; et al., 82h:81074c**
Leemon, H. I. *See* **Bracken, A. J., 82h:81073**
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Nieto, Michael Martin Coherent states for general potentials. IV. Three-dimensional systems. **82h:81074a**
(*with* Simmons, L. M., Jr.; Gutschick, Vincent P.) Coherent states for general potentials. VI. Conclusions about the classical motion and the WKB approximation. **82h:81074c**
See also **Gutschick, Vincent P., 82h:81074b**
Nikolov, B. (*with* Trifonov, D. A.) SU(2)-coherent states of quantum systems. (Russian) **82k:81041**
Sharma, J. K. (*with* Mehta, C. L.; Mukunda, N.; Sudarshan, E. C. G.) Representation and properties of para-Bose oscillator operators. II. Coherent states and the minimum uncertainty states. **82g:81043**
Simmons, L. M., Jr. *See* **Nieto, Michael Martin; et al., 82h:81074c**
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secondary classifications:

Berg, H. P. (*with* Tarski, Jan) Path integrals, coherent states, and geometric quantization. **(82h:81041)**
(Ciafaloni, M.) *See* **Onofri, Enrico, (82h:81047)**
Hochstenbach, W. J. M. A. A note on coherent states. **(82k:22012)**
Hou, Bo Yu A discrete symmetry and the ladder operators for the dynamical group of monopole. **(82h:81131)**
Jannussis, A. D. (*with* Patargias, N.; Papaloucas, L. C.) Connection between generalized Glauber operators and two-photon coherent states of the radiation field. **(82h:81022)**
Janssen, A. J. E. M. Weighted Wigner distributions vanishing on lattices. **(82i:81040)**
Karasev, V. P. (*with* Šelepin, L. A.) On the theory of generalized coherent states of SU_n groups. (Russian. English summary) **(82k:81026)**
Onofri, Enrico Path integrals over coherent states. **(82h:81047)**
Papaloucas, L. C. *See* **Jannussis, A. D.; et al., (82h:81022)**
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Tarski, Jan *See* **Berg, H. P., (82h:81041)**
Toyoda, Tadashi (*with* Wildermuth, Karl) Charged Schrödinger particle in a c-number radiation field. **(82k:81132)**
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Wildermuth, Karl *See* **Toyoda, Tadashi, (82h:81132)**

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Albeverio, Sergio (*with* Høegh-Krohn, Raphael) The method of Dirichlet forms. **82d:81066**
Bacry, H. The Poincaré group, the Dirac monopole and photon localisation. **82d:81067**
Drühl, Kai A theory of classical limit for quantum theories which are defined by real Lie algebras. **82g:81044**

Duval, C. On the prequantum description of spinning particles in an external gauge field. **82h:81075**
Garbaczewski, Piotr Quantization of spinor fields. **82b:81049**
Ginibre, Jean (*with* Velo, Giorgio) The classical field limit of nonrelativistic bosons. I. Borel summability for bounded potentials. **82f:81038**
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Grabowski, Marian The spreading of free wave packets and the entropy of position. **82d:81068**
Haake, Fritz (*with* Haus, Joseph W.; Glauber, Roy) Passage-time statistics for the decay of unstable equilibrium states. **82f:81039**
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Lemos, Nivaldo A. The Heisenberg picture is not privileged for the canonical quantization of dissipative systems. **82k:81042**
McFarlane, Keith (*with* Wan, Kay Kong) On certain local observables generated by the momenta. **82a:81019**
Negro, F. (*with* Tartaglia, A.) Quantization of motion in a velocity-dependent field: the v^2 case. **82b:81050**
Pasemann, F. B. General vector field representations of local Heisenberg systems. **82g:81045**
Segal, I. E. Decay processes and the quantization of nonunitarizable representations of causal groups. (*See* **82h:81004**)
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Ali, S. Twareque (*with* Prugovečki, Eduard) Self-consistent relativistic model for extended spin-$\frac{1}{2}$ particles in external fields. (Italian and Russian summaries) **(82i:81042)**
Brinati, J. R. (*with* Mizrahi, S. S.) Quantum friction in the c-number picture: the damped harmonic oscillator. **(82f:82068)**
Cahen, Michel (*with* Gutt, Simone) Produits-★ sur un espace riemannien symétrique. (English summary) **(82a:58024)**
(*with* Gutt, Simone) Invariant ★-products of holomorphic functions on the hyperbolic Hermitian spaces. **(82k:58018)**
Castagnino, Mario On the second quantization of scalar fields in curved space-time. **(82d:83041)**
da Costa, R. C. T. Quantum mechanics of a constrained particle. **(82c:81049)**
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Kosloff, Ronnie (*with* Rice, Stuart A.) The influence of quantization on the onset of chaos in Hamiltonian systems: the Kolmogorov entropy interpretation. **(82g:58051)**
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Mimura, Fumitake (*with* Ikushima, Akira) Structure of generalized Poisson algebras. **(82h:58040)**
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Simms, D. J. Geometric quantisation for singular Lagrangians. **(82g:58035)**

81Exx Quantum field theory

Fradkin, E. S. (*with* Paľčik, M. Ja.) Recent developments in conformal invariant quantum field theory. **82c:81070**
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81E05 Axiomatic quantum field theory; operator algebras

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Dadašjan, K. Ju. (*with* Horužii, S. S.) Conditional expectations on von Neumann algebras and causal independence of quantum fields. (Russian. English summary) **82j:81036**
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Fredenhagen, Klaus On the existence of antiparticles. **82g:81046**
Ghikas, Demetris P. K. An axiomatic framework for supersymmetries. **82j:81038**
Glaser, V. *See* **Epstein, H.; et al., 82j:81037**
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Krée, Paul Mathematical analysis of the functional method in quantum field theory. (*See* **82i:81004a**)
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Lomsadze, Ju. M. (*with* Sabad, O. P.) Abstract concentratable and reducible linear functionals and generalized functions. **82h:81077**
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Vladimirov, V. S. (*with* Zav'jalov, B. I.) Tauberian theorems in quantum field theory. (Russian) **82c:81072**
Yamanaka, H. (*with* Matsumoto, Hideki; Umezawa, Hiroomi) Role of the Wigner rotation in quantum field theory with extended objects. **82k:81046**
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Alcantara, Julio (*with* Dubin, Daniel A.) I^*-algebras and their applications. **(82k:46083)**
Antoine, Jean-Pierre Indefinite metric and Poincaré covariance. **(82m:46020b)**
Broadbridge, P. (*with* Hurst, C. A.) Existence of a complex structure for quadratic Hamiltonians? **(82g:81032)**
(*with* Hurst, C. A.) Fermi-Dirac quantization of linear systems. **(82m:81038)**
Bros, Jacques (*with* Pesenti, Danielle) Fredholm theory in complex manifolds with complex parameters: analyticity properties and Landau singularities of the resolvent. **(82c:81039)**
Čerednik, I. V. A quantum model for two-dimensional principal chiral fields. (Russian) **(82j:35126)**
Dubin, Daniel A. *See* **Alcantara, Julio, (82k:46083)**
Egorov, A. D. The Fourier-Wiener transformation and Wick ordering. (Russian. English summary) **(82h:46061)**
Gessner, W. The maximality of Lorentz spaces and their importance with respect to classical and quantum electrodynamics. **(82k:81102)**
Goldin, Gerald A. (*with* Menikoff, Ralph; Sharp, David H.) Representations of a local current algebra in nonsimply connected space and the Aharonov-Bohm effect. **(82k:81036)**
Hurst, C. A. *See* **Broadbridge, P., (82g:81032)** *and* **(82m:81038)**
Klauder, John R. Scale-covariant quantum field theory. (*See* **82i:81004a**)
Kraus, Karl (*with* Streater, R. F.) Some covariant representations of massless Fermi fields. **(82k:81033)**
Krée, Paul Triplets conucléaires des champs. **(82h:46062c)**
Méthode fonctionnelle en théorie des champs. **(82h:46062d)**
Menikoff, Ralph *See* **Goldin, Gerald A.; et al., (82k:81036)**
O'Connell, R. F. (*with* Wigner, Eugene P.) Position operators for systems exhibiting the special relativistic relation between momentum and velocity. **(82f:81100)**
Paneitz, S. M. (*with* Segal, I. E.) Quantization of wave equations and Hermitian structures in partial differential varieties. **(82g:81040)**
Pesenti, Danielle *See* **Bros, Jacques, (82c:81039)**
Polley, L. (*with* Reents, G.; Streater, R. F.) Some covariant representations of massless boson fields. **(82k:81034)**
Reents, G. *See* **Polley, L.; et al., (82k:81034)**
Rideau, G. Covariant quantizations of the Maxwell field. (French summary) **(82h:81071)**
Roberts, John E. Net cohomology and its applications to field theory. **(82d:46096)**
Ruijsenaars, Simon N. M. The continuum limit of the infinite isotropic Heisenberg chain in its ground state representation. **(82h:82012)**

Šatalov, V. E. Global asymptotic expansions in the characteristic Cauchy problem for complex-valued analytic functions. (Russian) **(82b:35024)**

Segal, I. E. *See* **Paneitz, S. M., (82g:81040)**

Šelkovič, V. M. Multiplications of distributions generated by Wightman functions, and an algebra of hyperdistributions. (Russian) **(82m:46044)**

Sewell, Geoffrey L. Relativity of temperature and the Hawking effect. **(82a:83042)**

Sharp, David H. *See* **Goldin, Gerald A.; et al., (82k:81036)**

Siciak, Józef A modified edge of the wedge theorem. **(82k:32040)**

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Tolokonnikov, G. K. (*with* Širokov, Ju. M.) An associative algebra of generalized functions, closed with respect to differentiation and taking primitives. (Russian. English summary) **(82j:46056)**

Wellner, Marcel Manifest gauge and Poincaré covariance. **(82m:78009)**

Wigner, Eugene P. *See* **O'Connell, R. F., (82f:81100)**

Žarinov, V. V. Analytic representations of a class of analytic functionals that contains Fourier hyperfunctions. (Russian) **(82k:46064)**

Fourier-ultrahyperfunctions. (Russian) **(82k:46062)**

On quasiasymptotics of Fourier hyperfunctions. (Russian. English summary) **(82k:46063)**

81E10 Constructive quantum field theory; models of quantum fields (including Yang-Mills theories)

Abdulla-Zade, F. G. Bound Hamiltonian states of a three-dimensional lattice Yang-Mills field with the gauge group U(1). (Russian. English summary) **82b:81053**

Aizenman, Michael Proof of the triviality of φ_d^4 field theory and some mean-field features of Ising models for $d>4$. **82g:81048**

Akdeniz, K. G. (*with* Hortaçsu, M.) Functional determinant for the Thirring model with instanton. **82c:81073**

Albeverio, Sergio (*with* Høegh-Krohn, Raphael) Martingale convergence and the exponential interaction in $\mathbf{R}^n$. **82i:81072**

Ambjørn, J. (*with* Flyvbjerg, H.) 't Hooft's nonabelian magnetic flux has zero classical energy. **82d:81070**

Aneva, B. L. (*with* Mikhov, S. G.; Stojanov, D. C.) On the nonunique definition of the current in the Thirring model. **82c:81074**

Aratyn, H. Unconventional spin solutions of the Schwinger and Thirring models. **82i:81073**

Aref'eva, I. Ja. (*with* Slavnov, A. A.) Geometric origin of the Higgs model. (Russian. English summary) **82e:81027**

Atiyah, Michael F. (*with* Hitchin, N. J.; Drinfel'd, V. G.; Manin, Ju. I.) Construction of instantons. **82g:81049**

Atkins, W. K. (*with* Davis, W. R.) Lanczos-type potentials in nonabelian gauge theories. (Italian and Russian summaries) **82c:81075**

Babičev, L. F. (*with* Kuvšinov, V. I.; Fedorov, F. I.) Green functions of first-order wave equations in the Wess-Zumino supersymmetric model. (Russian. English summary) **82h:81079**

Bacula, O. I. (*with* Gusynin, V. P.) Plane-wave solutions in the framework of the SU(2)-Yang-Mills theory. (Russian. English summary) **82m:81044**

Bardakci, Korkut Local field theory for solitons. II. **82f:81040**

Classical equations for nonabelian gauge theories in the large-N limit. **82m:81045**

Bars, Itzhak U(N) integral for the generating functional in lattice gauge theory. **82d:81071**

Battle, Guy A. Generalized analytic functions and the two-dimensional Euclidean Dirac operator. **82k:81047**

Bauhain, Marc Liaison entre équations différentielles de type Schrödinger réduit et équations de champs non linéaires. (English summary) **82c:81076**

Berkov, A. V. (*with* Nikitin, Ju. P.; Rozental', I. L.) Two-dimensional field theories. **82i:81074**

Bilić, Neven Fermion zero modes in finite temperature Yang-Mills theory. **82d:81072**

Boutaleb-Joutei, H. (*with* Chakrabarti, Amitabha; Comtet, A.) Non-self-dual complex solutions with finite, complex Euclidean actions for SU(2) Yang-Mills fields. **82i:81075**

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Kröger, Helmut (*with* Perne, R.) An *N*-body scattering equation approach using a pole decomposition of the Green's function. **82c:81129**
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Takatsuka, Kazuo (*with* McKoy, Vincent) Schwinger variational principle for multichannel scattering. **82d:81129**
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Cattapan, G. (*with* Vanzani, V.) The coupled-channel method and the integral-equation formalism for nuclear rearrangement reactions. (Italian and Russian summaries) **(82i:81131)**

Donnelly, Robert A. (*with* Simons, Jack) Complex coordinate rotation of the electron propagator. **(82b:81141)**

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81F15 *S*-matrix theory, etc.

Belavin, A. A. Discrete groups and integrability of quantum systems. (Russian) **82b:81110**

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(*with* Chudnovsky, Gregory V.) Hamiltonian structure of isospectral deformation equation and semiclassical approximation to factorized *S*-matrices. **82b:81111**

(*with* Chudnovsky, Gregory V.) Completely *X*-symmetric *S*-matrices corresponding to theta functions and models of statistical mechanics. **82f:81069**

Chudnovsky, Gregory V. *See* **Chudnovsky, David V., 82b:81111** *and* **82f:81069**

Davies, Edward Brian Energy dependence of the scattering operator. **82d:81131**

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Chan, C. K. (*with* Lu, P.) On the stability of the solution of Abel's integral equation. **82i:81132**

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Jacob, Peter Hans Conformal invariant two-particle scattering processes. **82h:81114**

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Kudrjavcev, V. A. The quantized relativistic string and the multiplicative dual model. **82i:81133**

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Nariai, Hidekazu (*with* Azuma, Takahiro) On the definition of a positive frequency part for a quantized scalar field in several Robertson-Walker universes. **82m:81075**

Narnhofer, Heide Another definition for time delay. **82c:81135**

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Thaller, B. Potential scattering of Dirac particles. **82k:81083**
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Vašakidze, Š. I. (*with* Matveev, V. A.) Bogoljubov transformation in the problem of massive particle capture by the quantum field. (Russian. English summary) **82b:81118**
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D'jakonov, V. Ju. The effect of mass parameters on asymptotic behaviour in the ladder model. (Russian. English summary) **(82h:81061)**
Gaida, R. P. (*with* Krohmal'skiĭ, T. E.) Approximate relativistic variables of the center of mass for a system of two interacting particles. (Russian) **(82c:83006)**
Hahn, Yukap (*with* Luddy, R.) Quasipotential approach to scattering theory. **(82h:81146)**
Henin, F. (*with* Maynè, F.) Physical description of decay processes. **(82j:82034)**
Johnson, Bruce R. On hyperspherical coordinates and mapping the internal configurations of a three-body system. **(82f:81092)**
Johnson, Porter W. (*with* Warnock, Robert Lee; Kaekebeke, M.) Dynamical equations for a Regge theory with crossing symmetry and unitarity. III. Crossing-symmetric representation with explicit Regge-pole terms. **(82h:81125a)**
(*with* Warnock, Robert Lee) Solution of the unitarity equation with overlapping left and right cuts: a tool for study of the S^* and similar systems. **(82f:81072)**
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Shankar, R. Simple derivation of the Baxter-model free energy. **(82k:82055)**
Skačkov, N. B. (*with* Solovcov, I. L.) Description of the form factor of a relativistic two-particle system in the covariant Hamiltonian formulation of quantum field theory. (Russian. English summary) **(82d:81160)**
Solovcov, I. L. *See* **Skačkov, N. B., (82d:81160)**
Vladimirov, V. S. (*with* Zav'jalov, B. I.) Tauberian theorems in quantum field theory. (Russian) **(82c:81072)**
Warnock, Robert Lee Dynamical equations for a Regge theory with crossing symmetry and unitarity. IV. Coupled channels. **(82h:81125b)**
See also **Johnson, Porter W., (82f:81072)** *and* **(82h:81125a)**
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81F30 Dispersion theory, dispersion relations

Auberson, G. (*with* Mennessier, G.) On the computation of bounds for low energy Compton scattering parameters: proof of a conjecture. **82e:81052**
Caprini, I. Constraints on physical amplitudes derived from a modified analytic interpolation problem. **82f:81071**
Gluško, N. I. (*with* Kobilins'kiĭ, M. A.) Behavior of the scattering amplitude in the region between elastic and inelastic cuts. (Russian. English summary) **82k:81084**
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(*with* Warnock, Robert Lee) Solution of the unitarity equation with overlapping left and right cuts: a tool for study of the S^* and similar systems. **82f:81072**
Kaekebeke, M. *See* **Johnson, Porter W.; et al., 82h:81125a**
Kobilins'kiĭ, M. A. *See* **Gluško, N. I., 82k:81084**
Krasnikov, N. V. Dispersion relation for the Gell-Mann-Low function, the spectrality condition and the asymptotic behaviour of the invariant charge. **82k:81085**
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Nenciu, G. (*with* Rasche, G.; Woolcock, W. S.) General solution of multichannel partial-wave dispersion relations. II. Noncoincident thresholds, one pole approximation. **82h:81119**
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Sakmar, I. A. Integrated rotational parameter as a constraint for the variational lower bound of the diffraction peak. **82h:81126**
Warnock, Robert Lee Dynamical equations for a Regge theory with crossing symmetry and unitarity. IV. Coupled channels. **82h:81125b**
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Barabanenkov, Ju. N. The asymptotic method in the theory of the passage of fast charged particles through matter. (Russian. English summary) **82i:81135**
Barancev, R. G. (*with* Semenov, S. K.) Classical scattering on a lattice of unbound atoms with an arbitrary boundary. (Russian. English summary) **82d:81143**
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Davies, Brian Difficulties with the inverse scattering transform method in quantum field theory. **82c:81137**
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Gerdžikov, V. S. (*with* Kuliš, P. P.; Ivanov, M. I.) Classical and quantum aspects of the inverse scattering method. **82b:81120**
Geronimo, Jeffrey S. (*with* Case, K. M.) Scattering theory and polynomials orthogonal on the real line. **82c:81138**
Grabovs'kiĭ, B. O. (*with* Derkač, V. P.; Korsuns'kiĭ, V. M.; Odarič, O. M.) Investigation of an integral equation of the interaction of a beam of accelerated electrons with a target. (Russian) **82h:81128**
Grosse, H. On the construction of Möller operators for the nonlinear Schrödinger equation. **82d:81145**
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Iosilevskii, Ya. A. Lippmann-Schwinger equations for a scalar macroscopic field in an anisotropic stratified medium. **82m:81078**
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Talukdar, B. Interpolating amplitude equations from an embedding technique. **82d:81147**
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Babelon, O. (*with* de Vega, H. J.; Viallet, C.-M.) Solutions of the factorization equations from Toda field theory. **(82i:81104)**
Bollé, D. (*with* Osborn, T. A.) Sum rules in classical scattering. **(82i:70002)**
(*with* D'Hondt, J.) On the Hilbert-space approach to classical time delay. **(82j:70012)**
Cao Xuan Chuan A theorem on the separation of a system of coupled differential equations. **(82d:35013)**
Chudnovsky, Gregory V. The inverse scattering problem and applications to arithmetic, approximations theory and transcendental numbers. **(82c:10045)**
Cypljaev, S. A. *See* **Kuliš, P. P., (82d:81082)**
D'Hondt, J. *See* **Bollé, D., (82j:70012)**
Dodd, Roger K. (*with* Morris, Hedley C.; Eagleton, J.) Perturbation theory for the nearly integrable nonlinear equations associated with a modified Zakharov-Shabat scattering problem. **(82c:35070)**
Eagleton, J. *See* **Dodd, Roger K.; et al., (82c:35070)**
Faddeev, L. D. A Hamiltonian interpretation of the inverse scattering method. (*See* **82m:35001**)
Fowler, M. The quantum inverse scattering method and applications to spin chains. (*See* **82g:82003**)
Gerdžikov, V. S. (*with* Ivanov, M. I.; Kuliš, P. P.) Quadratic pencils and nonlinear equations. (Russian) **(82b:34029)**
Gul'karov, I. S. (*with* Potapova, T. M.) Graphical methods of spin algebra and scattering of electrons in nuclei. (Russian) **(82c:81153)**
Ivanov, M. I. *See* **Gerdžikov, V. S.; et al., (82b:34029)**
Kawata, Tutomu (*with* Sakai, Jun-ichi) Linear problems associated with the derivative nonlinear Schrödinger equation. **(82e:81008)**
Kuliš, P. P. (*with* Cypljaev, S. A.) Supersymmetric $\cos\Phi_2$ model and the inverse problem method. (Russian. English summary) **(82d:81082)**
See also **Gerdžikov, V. S.; et al., (82b:34029)**
Kwong, Waikwok (*with* Rosner, Jonathan L.; Schonfeld, Jonathan F.; Quigg, C.; Thacker, H. B.) Degeneracy in one-dimensional quantum mechanics. **(82c:81020)**
Leon, Jérôme Jp. The inverse problem for a generalized Klein-Gordon system. **(82b:81018)**
Lin, C. D. Analytical channel functions for two-electron atoms in hyperspherical coordinates. **(82d:81167)**
Mel'nikov, V. K. Inverse scattering method in the theory of nonlinear evolution equations. (Russian. English summary) **(82f:35169)**

Morris, Hedley C. *See* **Dodd, Roger K.; et al., (82c:35070)**
Moses, Harry E. Exact solutions for the three-dimensional Schrödinger equation with quasilocal potentials obtained from a three-dimensional Gel'fand-Levitan equation. Examples of totally reflectionless scattering. (*See* **82h:81117**)
Neveu, A. Semiclassical approximations in field theory. **(82m:81064)**
Osborn, T. A. *See* **Bollé, D., (82i:70002)**
Papanicolaou, N. Inverse method for a generalized spin chain. **(82a:82013)**
Potapova, T. M. *See* **Gul'karov, I. S., (82c:81153)**
Quigg, C. *See* **Kwong, Waikwok; et al., (82c:81020)**
Rosner, Jonathan L. *See* **Kwong, Waikwok; et al., (82c:81020)**
Sakai, Jun-ichi *See* **Kawata, Tutomu, (82e:81008)**
Schonfeld, Jonathan F. *See* **Kwong, Waikwok; et al., (82c:81020)**
Thacker, H. B. *See* **Kwong, Waikwok; et al., (82c:81020)**
de Vega, H. J. *See* **Babelon, O.; et al., (82i:81104)**
Viallet, C.-M. *See* **Babelon, O.; et al., (82i:81104)**
Xia, Dao Xing On the scattering matrix with indefinite metric. **(82f:47012)**

81Gxx Particle physics (this covers all kinds of particles and interactions)

secondary classifications:

Barut, Asim O. (*with* Rączka, Ryszard) ★Теория представлений групп и ее приложения. 1. (Russian) [Theory of group representations and its applications. 1] **(82g:22014a)**
(*with* Rączka, Ryszard) ★Теория представлений групп и ее приложения. 2. (Russian) [Theory of group representations and its applications. 2] **(82g:22014b)**
(Gavrilik, O. M.) *See* **Barut, Asim O.; et al., (82g:22014a)** *and* **(82g:22014b)**
Itzykson, Claude (*with* Zuber, Jean Bernard) ★Quantum field theory. **(82h:81002)**
(Klimik, A. U.) *See* **Barut, Asim O.; et al., (82g:22014a)** *and* **(82g:22014b)**
Rączka, Ryszard *See* **Barut, Asim O., (82g:22014a)** *and* **(82g:22014b)**
(Urban, Paul) *See* **Quarks and leptons as fundamental particles, (82f:81003)**
Zuber, Jean Bernard *See* **Itzykson, Claude, (82h:81002)**
Conference:
Nuclear Physics ★Quarks and leptons as fundamental particles. **(82f:81003)**
Nuclear physics ★Quarks and leptons as fundamental particles. **(82f:81003)**
Quarks and leptons as fundamental particles ★Quarks and leptons as fundamental particles. **(82f:81003)**
Schladming ★Quarks and leptons as fundamental particles. **(82f:81003)**

81G05 Strong interaction

Affleck, Ian The role of instantons in scale-invariant gauge theories. II. The short-distance limit. **82b:81122**
Barducci, A. (*with* Casalbuoni, R.; Lusanna, L.) Anticommuting variables, internal degrees of freedom, and the Wilson loop. **82a:81045**
Belokurov, V. V. (*with* Usjukina, N. I.) Double logarithmic asymptotics of vertex functions in quantum chromodynamics. I. (Russian. English summary) **82c:81140**
Brezin, E. (*with* Gross, David J.) The external field problem in the large N limit of QCD. **82c:81141**
Brower, Richard C. (*with* Nauenberg, Michael) Group integration for lattice gauge theory at large N and at small coupling. **82g:81103**
(*with* Rossi, Paolo; Tan, Chung I) The external field problem for QCD. **82m:81079**
Casalbuoni, R. *See* **Barducci, A.; et al., 82a:81045**
Gauthier, Serge SU_2 quantum chromodynamics perturbation theory in the instanton sector compared to the zeroth sector. (Italian and Russian summaries) **82i:81136**
Golomb, Solomon W. Rubik's cube and a model of quark confinement. **82k:81086**
Gotō, Tetsuo (*with* Naka, Sigefumi; Kamimura, Kiyoshi) On the bi-local model and string model. **82f:81075**
Gross, David J. (*with* Pisarski, Robert D.; Yaffe, Laurence G.) QCD and instantons at finite temperature. **82e:81053**
See also **Brezin, E., 82c:81141**
Hara, Osamu Dynamical theory of hadrons based upon extended particle picture. **82a:81046**
Hohlačev, S. B. (*with* Makeenko, Ju. M.) Phase transition over the gauge group center and quark confinement in QCD. **82f:81076**
't Hooft, Gerard Some twisted self-dual solutions for the Yang-Mills equations on a hypertorus. **82k:81087**
Joos, H. Introduction to quark confinement in QCD. (*See* **82f:81003**)
Kamimura, Kiyoshi *See* **Gotō, Tetsuo; et al., 82f:81075**
Khare, Avinash Rigorous inequalities in nonrelativistic quantum mechanics with applications to quarkonium spectroscopy. **82f:81077**
Krasnikov, N. V. Analyticity and renormalization group. **82k:81088**
(*with* Matveev, V. A.; Tavhelidze, A. N.) The problem of CP invariance in quantum chromodynamics. **82k:81089**
Liskova, N. A. Scattering amplitude for open and closed strings in excited states. (Russian. English summary) **82d:81148**
Lusanna, L. *See* **Barducci, A.; et al., 82a:81045**
Lüscher, M. (*with* Münster, Gernot; Weisz, Peter) How thick are chromo-electric flux tubes? **82a:81047**
Mack, Gerhard Quark confinement in lattice gauge theories. (*See* **82c:81001**)
Makeenko, Ju. M. (*with* Migdal, A. A.) Quantum chromodynamics as dynamics of loops. **82i:81137**
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Marchetti, P. A. The U_1 problem in a two- and in a four-dimensional model. (Italian and Russian summaries) **82d:81149**
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Migdal, A. A. Exact equivalence of multicolour QCD to the Fermi string theory. **82f:81078**
QCD = Fermi string theory. **82j:81056**
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Münster, Gernot (*with* Weisz, Peter) On the roughening transition in abelian lattice gauge theories. **82a:81048**
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Paschos, E. A. Some current issues in gauge theories. (*See* **82f:81003**)
Pervušin, V. N. Quantum chromodynamics as a microscopic superfluidity theory. (Russian. English summary) **82i:81138**
Pisarski, Robert D. *See* **Gross, David J.; et al., 82e:81053**
Pyž, V. M. The geometric approach to the problem of strong interactions. I. Strong gravitation. (Russian) **82f:81079a**
The geometric approach to the problem of strong interactions. II. Conformal invariance. (Russian) **82f:81079b**
Rossi, Paolo *See* **Brower, Richard C.; et al., 82m:81079**
Salam, Abdus (*with* Strathdee, J.) On Witten's charge formula. **82a:81049**
Shei, Sun-Sheng (*with* Tsao, Hung Sheng) Scalar quantum chromodynamics in two dimensions and the parton model. **82i:81139**
Steinhardt, Paul J. Two-dimensional gauge theories with diagonal SU(N) color. **82f:81080**
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Tan, Chung I *See* **Brower, Richard C.; et al., 82m:81079**
Tavhelidze, A. N. *See* **Krasnikov, N. V.; et al., 82k:81089**
Thorn, Charles B. Infinite N_c QCD at finite temperature: is there an ultimate temperature? **82d:81150**
Tsao, Hung Sheng *See* **Shei, Sun-Sheng, 82i:81139**
Usjukina, N. I. *See* **Belokurov, V. V., 82c:81140**
Veneziano, G. U(1) without instantons. **82d:81151**
Weisz, Peter *See* **Lüscher, M.; et al., 82a:81047** *and* **Münster, Gernot, 82a:81048**
Yaffe, Laurence G. *See* **Gross, David J.; et al., 82e:81053**
Yoshida, K. The spontaneous breakdown of chiral symmetry in the semiclassical method. I. Boundary condition on the path integral. **82i:81140**
Želtuhin, A. A. Generalization of the relativistic string model and the topological structure of its classical solutions. **82k:81090**

secondary classifications:

Anderson, J. T. Lie-algebra approach to symmetry breaking. **(82f:81035)**
Baekler, Peter A spherically symmetric vacuum solution of the quadratic Poincaré gauge field theory of gravitation with Newtonian and confinement potentials. **(82c:83054)**
Banks, T. (*with* Kaplunovsky, V.) Composite massless fermions in strongly coupled lattice gauge theories. **(82k:81065)**
Bell, J. S. (*with* Bertlmann, R. A.) Magic moments. **(82d:81136)**
Bengus, L. E. (*with* Zupnik, B. M.) Bilocal gauge fields. (Russian) **(82c:81101)**
Berg, B. (*with* Stehr, J.) Comments on the computation of quantum fluctuations of gluons in a multi-instanton background. **(82c:81102)**
Berkov, A. V. (*with* Nikitin, Ju. P.; Rozental', I. L.) Two-dimensional field theories. **(82i:81074)**
Bertlmann, R. A. *See* **Bell, J. S., (82d:81136)**
Bilić, Neven Fermion zero modes in finite temperature Yang-Mills theory. **(82d:81072)**
Chew, G. F. (*with* Finkelstein, J.; McMurry, Robert E., Jr.; Poénaru, V.) A topological theory of electric charge. **(82d:81152)**
Denardo, G. (*with* Spallucci, E.) Gauge fields in $S^1 \times \mathbf{R}^3$. (Italian summary) **(82f:81062)**
Dobrohotov, S. Ju. (*with* Maslov, V. P.) Multidimensional nonlinear spectral boundary value problems and superposition of their asymptotic solutions according to the law of superposition of solitons. (Russian) **(82b:35124)**
Finkelstein, J. *See* **Chew, G. F.; et al., (82d:81152)**
Forgács, Peter (*with* Horváth, Zalán; Palla, László) Exact multimonopole solutions in the Bogomolny-Prasad-Sommerfield limit. **(82f:81043a)**
(*with* Horváth, Zalán; Palla, László) Errata: "Exact multimonopole solutions in the Bogomolny-Prasad-Sommerfield limit". **(82f:81043b)**
(Fries, Dietrich E. C.) *See* **New phenomena in lepton-hadron physics, (82h:81135)**
Grosse, H. Exact results for confining potentials. **(82h:81118)**
Hasenfratz, Anna (*with* Hasenfratz, Etelka; Hasenfratz, Peter) Generalized roughening transition and its effect on the string tension. **(82e:81036)**
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Hortaçsu, M. (*with* Rothe, K. D.; Schroer, Bert) Zero-energy eigenstates for the Dirac boundary problem. **(82c:81081)**
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Kastrup, H. A. (*with* Rinke, M.) Hamilton-Jacobi theories for strings. **(82m:81052)**
King, Michael J. (*with* Rohrlich, Fritz) Relativistic Hamiltonian dynamics. II. Momentum-dependent interactions, confinement and quantization. **(82d:70029)**
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Lee, Choonkyu (*with* Pac, P. Y.) Heavy-particle-induced effective Lagrangian in spontaneously broken theories. I. The σ-model. **(82c:81065)**
Lüscher, M. (*with* Symanzik, K.; Weisz, Peter) Anomalies of the free loop wave equation in the WKB approximation. **(82a:81035)**
Makeenko, Ju. M. (*with* Hohlačev, S. B.) The symmetry of the center of the gauge group and the problem of quark confinement in quantum chromodynamics. **(82k:81094)**
Mannion, C. L. T. (*with* Taylor, John G.) General relativity on a flat lattice. **(82d:83062)**
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Matsumoto, Tetsuaki A gauge theory of the integral form: lattice-like gauge theory invariant under translation and rotation. **(82h:81098)**

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Palla, László *See* **Forgács, Peter; et al., (82f:81043a)** *and* **(82f:81043b)**
Pasupathy, J. (*with* Singh, Virendra) Higher order JWKB expressions for the energy levels and the wavefunction at the origin. **(82i:81034)**
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Quigg, C. *See* **Schonfeld, Jonathan F.; et al., (82h:81104)**
Raychaudhuri, A. (*with* Sarkar, U.) New solutions of Yang-Mills equations with static external sources. **(82h:81094)**
Repko, Wayne W. *See* **Hostler, Levere C., (82i:81062)**
Rinke, M. *See* **Kastrup, H. A., (82m:81052)**
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Rozental', I. L. *See* **Berkov, A. V.; et al., (82i:81074)**
Samuel, Stuart U(N) integrals, $1/N$, and the De Wit-'t Hooft anomalies. **(82c:81116)**
Sarkar, U. *See* **Raychaudhuri, A., (82h:81094)**
Schonfeld, Jonathan F. (*with* Kwong, Waikwok; Rosner, Jonathan L.; Quigg, C.; Thacker, H. B.) On the convergence of reflectionless approximations to confining potentials. **(82h:81104)**
Schroer, Bert *See* **Hortaçsu, M.; et al., (82c:81081)**
Šifman, M. A. *See* **Vaĭnštein, A. I.; et al., (82m:81016)**
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Spallucci, E. *See* **Denardo, G., (82f:81062)**
Stehr, J. *See* **Berg, B., (82c:81102)**
Symanzik, K. *See* **Lüscher, M.; et al., (82a:81035)**
Taylor, John G. *See* **Mannion, C. L. T., (82d:83062)**
Thacker, H. B. *See* **Schonfeld, Jonathan F.; et al., (82h:81104)**
Treder, Hans-Jürgen Einsteins hermitesche Relativitätstheorie als Unifikation von Gravo- und Chromodynamik. (English summary) **(82h:83074)**
Tyburski, L. Even more about gauge theories in 1+1 dimensions. **(82c:81095)**
Vaĭnštein, A. I. (*with* Zaharov, V. I.; Novikov, V. A.; Šifman, M. A.) Asymptotic freedom in quantum mechanics. **(82m:81016)**
Weisz, Peter *See* **Lüscher, M.; et al., (82a:81035)**
(Wess, Julius) *See* **New phenomena in lepton-hadron physics, (82h:81135)**
Zagrebnov, V. A. (*with* Priezžev, V. B.) Gauge symmetry and phase transitions in the random spin systems. (Russian. English summary) **(82e:81046)**
Zaharov, V. I. *See* **Vaĭnštein, A. I.; et al., (82m:81016)**
Zupnik, B. M. *See* **Bengus, L. E., (82c:81101)**
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New Phenomena in Lepton-Hadron Physics ★New phenomena in lepton-hadron physics. **(82h:81135)**
New phenomena in lepton-hadron physics ★New phenomena in lepton-hadron physics. **(82h:81135)**

81G10 Electromagnetic interaction

Bocchieri, P. (*with* Loinger, A.) Locality of quantum electromagnetism. **82c:81142**
Chew, G. F. (*with* Finkelstein, J.; McMurry, Robert E., Jr.; Poénaru, V.) A topological theory of electric charge. **82d:81152**
Chisholm, J. S. R. (*with* Farwell, Ruth S.) Spin gauge field theory of electric and magnetic spinors. **82g:81104**
D'Emma, G. C. On quantization of the electromagnetic field. **82h:81129**
Englert, Berthold-Georg Quantization of the radiation-damped harmonic oscillator. **82k:81091**
Farwell, Ruth S. *See* **Chisholm, J. S. R., 82g:81104**
Finkelstein, J. *See* **Chew, G. F.; et al., 82d:81152**
Fonda, L. General theory of the ionization of an atom by an electrostatic field. (Italian and Russian summaries) **82k:81092**
Gaudin, Michel Sur le problème de deux ou trois électrons en présence d'un moment localisé. (English summary) **82h:81130**
Gonjaev, V. V. A generally covariant kinetic equation for photons. (Russian. English summary) **82f:81081**
Hou, Bo Yu A discrete symmetry and the ladder operators for the dynamical group of monopole. **82h:81131**
Kraus, Karl Galilei covariance does not imply minimal electromagnetic coupling. (German summary) **82b:81123**
Kunimasa, T. The Casimir effect as a screening effect in quantized field theory. **82h:81124**
Loinger, A. *See* **Bocchieri, P., 82c:81142**
Lykosov, V. M. Relativistic equations of motion of a charged particle beam. (Russian. English summary) **82c:81143**
Maison, H. Dieter Uniqueness of the Prasad-Sommerfield monopole solution. **82f:81082**
McMurry, Robert E., Jr. *See* **Chew, G. F.; et al., 82d:81152**
Milonni, P. W. Radiation reaction and the nonrelativistic theory of the electron. **82c:81144**
Mostepanenko, V. M. Particle creation and vacuum polarization by a nonstationary electric field. (Russian. English summary) **82e:81054**
Ogilvie, M. C. Goldstone modes on Wilson's surface. **82d:81153**
Olive, D. I. Magnetic monopoles and nonabelian gauge theories. **82b:81125**
O'Raifeartaigh, L. (*with* Park, S. Y.; Wali, K. C.) On the long-range interaction of topologically charged monopoles. **82f:81083**
Park, S. Y. *See* **O'Raifeartaigh, L.; et al., 82f:81083**
Petry, Herbert-Rainer Electron scattering on magnetic monopoles. **82i:81141b**
Scattering on magnetic monopoles. **82i:81141a**
Petry, Walter Elektrodynamik mit Spin. (English summary) **82b:81126**
Poénaru, V. *See* **Chew, G. F.; et al., 82d:81152**
Rothe, K. D. (*with* Schroer, Bert) Do quark correlation functions exist in confining gauge theories? **82a:81050**
Schroer, Bert *See* **Rothe, K. D., 82a:81050**
Toyoda, Tadashi (*with* Wildermuth, Karl) Charged Schrödinger particle in a c-number radiation field. **82h:81132**
Wali, K. C. *See* **O'Raifeartaigh, L.; et al., 82f:81083**
Wildermuth, Karl *See* **Toyoda, Tadashi, 82h:81132**
Yang, Chen Ning Fibre bundles and the physics of the magnetic monopole. **82h:81133**

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Ali, S. Twareque Aspects of relativistic quantum mechanics on phase space. **(82m:81023)**
Andrianov, A. A. On the time gauge in the description of propagation of a quantum scalar particle. (Russian. English summary) **(82m:81027)**
Bacry, H. The Poincaré group, the Dirac monopole and photon localisation. **(82d:81067)**
Barut, Asim O. Magnetic resonances between massive and massless spin-$\frac{1}{2}$ particles with magnetic moments. **(82c:81131)**
Burkitt, A. N. *See* **Davies, Brian, (82d:81188)**
Davies, Brian (*with* Burkitt, A. N.) On the relationship between quantum, random and semiclassical electrodynamics. **(82d:81188)**
De Sabbata, V. (*with* Gasperini, M.) Gauge invariance, semiminimal coupling, and propagating torsion. **(82e:83030)**
Gasperini, M. *See* **De Sabbata, V., (82e:83030)**
Halilov, V. R. *See* **Lobanov, A. E.; et al., (82c:81134)**
Honda, Yumiko (*with* Kawakita, Yosiko; Kondô, Kyôko; Iwata, Giiti) Motion of a charged particle in an electromagnetic field. **(82c:78011)**
Iwata, Giiti *See* **Honda, Yumiko; et al., (82c:78011)**
Kawakita, Yosiko *See* **Honda, Yumiko; et al., (82c:78011)**
Kerner, Richard Magnetic monopole in the massless limit. **(82i:81086)**
Kondô, Kyôko *See* **Honda, Yumiko; et al., (82c:78011)**
Krause, Jorge Radiation gauge covariance. **(82m:81063)**
Lim, S. C. Euclidean electromagnetic field as Itô's random current: a simple proof of Markov property. **(82f:81049)**
Lobanov, A. E. (*with* Rodionov, V. N.; Ternov, I. M.; Halilov, V. R.) Elastic scattering amplitudes of the electron and photon in a constant electromagnetic field. (Russian. English summary) **(82c:81134)**
Narain, K. S. Path-integral quantization of a Dirac string Lagrangian in the $A^0=0$ gauge. **(82a:81015)**
Novikov, S. P. Bloch functions in the magnetic field and vector bundles. Typical dispersion relations and their quantum numbers. (Russian) **(82h:81111)**
Rodionov, V. N. *See* **Lobanov, A. E.; et al., (82c:81134)**
Smoljakov, N. V. Electron scattering on the Dirac-Schwinger monopole for small angles. (Russian. English summary) **(82c:81139)**
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Wellner, Marcel Manifest gauge and Poincaré covariance. **(82m:78009)**

81G15 Weak interaction

(Fries, Dietrich E. C.) *See* **New phenomena in lepton-hadron physics, 82h:81135**
Himič, I. V. *See* **Lazur, V. I., 82i:81142**
Jarlskog, Cecilia Gauge theories. (*See* **82h:81135**)
Lazur, V. I. (*with* Himič, I. V.) Weak interaction and dispersion relations. (Russian. English summary) **82i:81142**
Morita, Katsusada Gauge theories over quaternions and Weinberg-Salam theory. **82h:81134**
Weinberg, Steven Conceptual foundations of the unified theory of weak and electromagnetic interactions. **82h:81127**
(Wess, Julius) *See* **New phenomena in lepton-hadron physics, 82h:81135**
Karlsruhe ★New phenomena in lepton-hadron physics. **82h:81135**
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New phenomena in lepton-hadron physics ★New phenomena in lepton-hadron physics. **82h:81135**

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Gladuš, V. D. Five-dimensional theory of interacting scalar, electromagnetic, and gravitational fields. (Russian) **(82e:83036)**

Hearn, A. C. Symbolic computation and its application to high energy physics. **(82f:68043)**

Hirschfeld, Allen C. (*with* Leschke, Hajo) Quantization of Yang-Mills fields in superspace. **(82c:83069)**

Huerta, Robert (*with* Parker, Barry R.) Magnetic monopole in variations on Einstein's nonsymmetric unified field theory. **(82j:83057)**

Kalinowski, M. W. CP-nonconservation and a dipole electric moment of fermion in the Klein-Kaluza theory. **(82m:83048)**

Kimura, Toshiei Expansion coefficient of heat kernel of Laplacian operator in Riemann-Cartan space. **(82h:83063)**

Kudrjavcev, V. A. The quantized relativistic string and the multiplicative dual model. **(82i:81133)**

Leschke, Hajo *See* **Hirschfeld, Allen C., (82c:83069)**

McLeod, Kevin (*with* Serrin, James) Uniqueness of solutions of semilinear Poisson equations. **(82k:35029)**

Pandres, Dave, Jr. Quantum unified field theory from enlarged coordinate transformation group. **(82h:83071)**

Parker, Barry R. *See* **Huerta, Robert, (82j:83057)**

Penrose, Roger The googly photon. (*See* **82e:83002**)

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Poltavcev, A. N. *See* **Vereškov, G. M., (82c:83053)**

Regge, Tullio *See* **D'Auria, R.; et al., (82i:83071)**

Serrin, James *See* **McLeod, Kevin, (82k:35029)**

Shankar, R. A model that acquires integrability and O($2N$) invariance. **(82f:81052)**

Slavnov, A. A. *See* **Aref'eva, I. Ja., (82e:81027)**

Strominger, Andrew Inverse-dimensional expansion in quantum gravity. **(82m:83021)**

Vereškov, G. M. (*with* Poltavcev, A. N.) Quantum phenomena in strongly curved space-time and the structure of equations of a gravitational field. (Russian) **(82c:83053)**

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Balantekin, A. Baha (*with* Bars, Itzhak; Iachello, F.) U(6/4) supersymmetry in nuclei. **82h:81145**

Bars, Itzhak *See* **Balantekin, A. Baha; et al., 82h:81145**

Beidenharn, L. C. *See* **Castilho Alcarás, J. A., 82c:81150**

Castilho Alcarás, J. A. (*with* Beidenharn, L. C.) Erratum: "On the coupling of self-conjugate systems with $\overline{SL}(3,\mathbf{R})$ symmetry" [J. Math. Phys. **20** (1979), no. 8, 1615–1621; MR 80i:81069]. **82c:81150**

Chacón, E. (*with* Moshinsky, M.; Vanagas, V. V.) Confrontation of macroscopic and microscopic nuclear collective models. **82j:81059**

Deans, S. R. *See* **Feng, Da Hsuan; et al., 82c:81151**

Feng, Da Hsuan (*with* Gilmore, Robert; Deans, S. R.) Phase transitions and the geometric properties of the interacting boson model. **82c:81151**

Filippov, G. F. *See* **Vasilevskiĭ, V. S.; et al., 82i:81156**

Freemantle, Michael H. NMR spectral analysis. I. A review of the indirect and direct methods. **82f:81088**

Gilmore, Robert *See* **Feng, Da Hsuan; et al., 82c:81151**

Ginocchio, Joseph N. (*with* Kirson, M. W.) An intrinsic state for the interacting boson model and its relationship to the Bohr-Mottelson model. **82c:81152**

Gul'karov, I. S. (*with* Potapova, T. M.) Graphical methods of spin algebra and scattering of electrons in nuclei. (Russian) **82c:81153**

Gulshani, P. Lie algebra projectors and the kinematics of collective motions. **82j:81060**

Hecht, K. T. (*with* Reske, E. J.; Seligman, Thomas H.; Zahn, W.) Spectroscopic amplitudes for complex cluster systems. **82h:81135**

Iachello, F. *See* **Balantekin, A. Baha; et al., 82h:81145**

John, Gero *See* **Kramer, Peter; et al., 82m:81085**

Kalinauskas, R. K. Irreducible structure of matrices of operators in the basis of a unitary scheme. (Russian. Lithuanian and English summaries) **82d:81161**

Kalos, M. H. *See* **Zabolitzky, J. G., 82h:81137**

Kirson, M. W. *See* **Ginocchio, Joseph N., 82c:81152**

Kramer, Peter (*with* John, Gero; Schenzle, Dieter) ★Group theory and the interaction of composite nucleon systems. **82m:81085**

Kuznecov, G. I. Tops and finite-rotation matrices in odd-dimensional spaces. **82i:81155**

Kyrchev, G. On the equivalence of the quadrupole phonon model and the interacting boson model. **82c:81154**

Lane, A. M. (*with* Martorell, J.) The random phase approximation: its role in restoring symmetries lacking in the Hartree-Fock approximation. **82h:81136**

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Moshinsky, M. *See* **Chacón, E.; et al., 82j:81059**

Potapova, T. M. *See* **Gul'karov, I. S., 82c:81153**

Quesne, C. Matrix elements of operators in symmetrical $U(6)\supset U(3)\supset U(2)\supset U(1)$ and $U(6)\supset SU(3)\supset SO(3)\supset SO(2)$ basis. **82j:81061**

Reske, E. J. *See* **Hecht, K. T.; et al., 82h:81135**

Rosensteel, G. (*with* Rowe, D. J.) On the algebraic formulation of collective models. III. The symplectic shell model of collective motion. **82e:81057b**

See also **Rowe, D. J., 82e:81057a**

Rowe, D. J. (*with* Rosensteel, G.) On the algebraic formulation of collective models. II. Collective and intrinsic submanifolds. **82e:81057a**

See also **Rosensteel, G., 82e:81057b**

Schenzle, Dieter *See* **Kramer, Peter; et al., 82m:81085**

Seligman, Thomas H. *See* **Hecht, K. T.; et al., 82h:81135**

Siniveè, V. A group-theoretic approach to the dynamics of multispin systems. VIII. (Russian. Estonian and English summaries) **82f:81089**

Smirnov, Ju. F. *See* **Vasilevskiĭ, V. S.; et al., 82i:81156**

Vanagas, V. V. *See* **Chacón, E.; et al., 82j:81059**

Vasilevskiĭ, V. S. (*with* Smirnov, Ju. F.; Filippov, G. F.) Generating function for the full basis of the irreducible representation of the group $Sp(6,\mathbf{R})$. **82i:81156**

Zabolitzky, J. G. (*with* Kalos, M. H.) Solution of the four-nucleon Schrödinger equation. **82h:81137**

Zahn, W. *See* **Hecht, K. T.; et al., 82h:81135**

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Balantekin, A. Baha (*with* Bars, Itzhak) Dimension and character formulas for Lie supergroups. **(82h:81049)**

Bars, Itzhak *See* **Balantekin, A. Baha, (82h:81049)**

Moshinsky, M. (*with* Seligman, Thomas H.) Canonical transformations relating the oscillator and Coulomb problems and their relevance for collective motions. **(82k:81098)**

Seligman, Thomas H. *See* **Moshinsky, M., (82k:81098)**

Siniveè, V. NMR of spin $\frac{1}{2}$ and the group $GL(4,\mathbf{R})$. (Russian. Estonian and English summaries) **(82i:82053a)**

NMR of spin $\frac{1}{2}$ and the group $GL(4,\mathbf{R})$. II. (Russian. Estonian and English summaries) **(82i:82053b)**

81G35 Other nuclear physics

Arima, Akito (*with* Yoshida, Nobuaki; Ginocchio, Joseph N.) A test of boson mappings of fermion systems. **82d:81162**

Arvieu, R. *See* **Troudet, T., 82i:81159**

Barnsley, M. F. (*with* Turchetti, G.) Rigorous bounds for charge densities from form factor data. **82g:81112**

(*with* Turchetti, G.) Bounding methods in nuclear physics. **82j:81062**

Bartolotti, L. J. Time-dependent extension of the Hohenberg-Kohn-Levy energy-density functional. **82j:81063**

Bohr, Aage (*with* Mottelson, Ben R.) Solutions for particle-rotor and cranking models for single j configuration. **82h:81138**

(*with* Mottelson, Ben R.) Features of nuclear deformations produced by the alignment of individual particles or pairs. **82c:81155**

Brody, T. A. (*with* Flores, J.; French, J. B.; Mello, P. A.; Pandey, A.; Wong, S. S. M.) Random-matrix physics: spectrum and strength fluctuations. **82f:81090**

Brown, G. E. The nucleon-nucleon interaction and the nuclear many-body problem. **82c:81156**

Castro, Eduardo A. *See* **Fernández, Francisco M., 82g:81113**

Fernández, Francisco M. (*with* Castro, Eduardo A.) Hypervirial relations and orthogonalization conditions. **82g:81113**

Flores, J. *See* **Brody, T. A.; et al., 82f:81090**

French, J. B. *See* **Brody, T. A.; et al., 82f:81090**

Gadre, Shridhar R. (*with* Matcha, Robert L.) Inequalities among atomic expectation values. **82c:81157**

Ginocchio, Joseph N. *See* **Arima, Akito; et al., 82d:81162**

Giraud, B. G. A few questions of numerical and functional analysis for the many body problem in nuclear physics. **82i:81157**

Grümmer, F. *See* **Schmid, K. W., 82g:81114**

Hahn, Yukap (*with* Luddy, R.) Quasipotential approach to scattering theory. **82h:81146**

Halemane, Thirumala Raya A statistical approach to perturbation theory and inverse-energy-weighted sum rules. **82m:81086**

Klein, Abraham (*with* Vallières, Michel) Relationship between the Bohr collective Hamiltonian and the interacting-boson model. **82a:81054**

Krivine, H. (*with* Treiner, J.) An expansion of the moments of powers of a Fermi distribution. **82m:81087**

Kurath, Dieter The nuclear shell model. **82c:81158**

Luddy, R. *See* **Hahn, Yukap, 82h:81146**

Matcha, Robert L. *See* **Gadre, Shridhar R., 82c:81157**

McConnell, James Spectral densities of spherical harmonics for rotational Brownian motion. **82e:81058**

Mello, P. A. *See* **Brody, T. A.; et al., 82f:81090**

Mottelson, Ben R. *See* **Bohr, Aage, 82h:81138** *and* **82c:81155**

Pandey, A. *See* **Brody, T. A.; et al., 82f:81090**

Reinhardt, Hugo Semiclassical theory of nuclear fission. **82i:81158**

Saifuddin Random phase approximation for three particle nuclear potential. **82a:81055**

Schmid, K. W. (*with* Grümmer, F.) Variational equations for the solution of the Hartree-Fock problem with angular momentum projection before the variation. **82g:81114**

Treiner, J. *See* **Krivine, H., 82m:81087**

Troudet, T. (*with* Arvieu, R.) Shapes of nuclear configurations in a cranked harmonic oscillator model. **82i:81159**

On the extended Thomas-Fermi approximation to the cranked harmonic oscillator. **82d:81163**

Turchetti, G. *See* **Barnsley, M. F., 82g:81112** *and* **82j:81062**

Ullah, Nazakat On the expansion of the single eigenvalue probability density function. **82d:81164**

Vallières, Michel *See* **Klein, Abraham, 82a:81054**

Wong, S. S. M. *See* **Brody, T. A.; et al., 82f:81090**

Yoshida, Nobuaki *See* **Arima, Akito; et al., 82d:81162**

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Burum, D. P. Magnus expansion generator. **(82k:81015)**

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Kuyucak, S. *See* **Iachello, F., (82m:81088)**

Prakash, M. *See* **Shlomo, S., (82d:81041)**

Ring, Peter (*with* Schuck, Peter) ★The nuclear many-body problem. **(82h:81155)**

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Shlomo, S. (*with* Prakash, M.) Phase space distribution of an N-dimensional harmonic oscillator. **(82d:81041)**

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Yamamura, Masatoshi A simple example of the exactly soluble Hamiltonian with coordinate-dependent mass in the semiclassical theory. **(82c:81027a)**

A description of the rotator as an example of Hamiltonian with coordinate-dependent mass. Semiclassical theory. **(82c:81027b)**

Yu, You Wen (*with* Wu, Hui Fang) The relativistic deuteron wave function. (Chinese. English summary) **(82h:81063)**

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Butler, P. H. *See* **Reid, M. F., 82e:81059**

Ceulemans, A. *See* **Vanquickenborne, L. G., 82c:81159**

Fröman, Nanny (*with* Fröman, Per Olof) Generalization of the Fermi-Segrè formula. (French summary) **82h:81148**

Fröman, Per Olof *See* **Fröman, Nanny, 82h:81148**

Joshi, S. K. *See* **Lal, R., 82d:81166**

Kent, R. D. (*with* Schlesinger, M.) Unitary group approach to the treatment of mixed-orbital configurations. **82d:81165**

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Lal, R. (*with* Joshi, S. K.) Matrix elements for calculating transitions among the $1s$, $2s$, $2p$, $3s$, $3p$ and $3d$ states of atomic hydrogen by the Faddeev approach. **82d:81166**

Lin, C. D. Analytical channel functions for two-electron atoms in hyperspherical coordinates. **82d:81167**

Muftahova, F. I. Construction of representations of permutation groups on the basis of vector-coupled functions. (Russian. English summary) **82g:81115**

Reid, M. F. (*with* Butler, P. H.) Orientations of point groups—phase choices in the Racah-Wigner algebra. **82e:81059**
Richter, Walter Mehrelektronen-Spin-Eigenfunktionen von Molekülen bei nichtorthogonaler Basis. (Russian and English summaries) **82i:81161**
Ross, William R. Basis states for equivalent electrons. I. States for the Lie group $U(2l+1)\times SU(2)$. (French summary) **82d:81168a**
Basis states for equivalent electrons. II. States for the Lie group $Sp(4l+2)$. (French summary) **82d:81168b**
Basis states for equivalent electrons. III. States for the Lie group $SO(2l+1)\times SU(2)$ using $Sp(4l+2)$ states. **82d:81168c**
Basis states for equivalent electrons. IV. States for the Lie group $SO(2l+1)\times SU(2)$ using $U(2l+1)\times SU(2)$ states. (French summary) **82d:81168d**
Schlesinger, M. *See* **Kent, R. D., 82d:81165**
Sharma, C. S. *See* **Wilson, R. G., 82e:81060**
Tarasov, V. F. Calculation of radial Slater integrals using Appell functions. (Russian. Kazakh summary) **82g:81116**
Vanquickenborne, L. G. (*with* Ceulemans, A.) On the evaluation of matrix elements of symmetry operators in a determinantal basis. **82c:81159**
Wilson, R. G. (*with* Sharma, C. S.) Perturbation method for relativistic energies of atoms. **82e:81060**

81G45 Other atomic physics

Ahlrichs, Reinhart (*with* Hoffmann-Ostenhof, Maria; Hoffmann-Ostenhof, Thomas; Morgan, John D., III) Bounds on the decay of electron densities with screening. **82j:81064**
Azimov, S. A. (*with* Broškina, N. B.; Haitov, M. S.; Čudakov, V. M.) Angular distributions in decays into two particles. (Russian) **82g:81117**
Barcza, S. Restricted quantum-mechanical three-body problems. II. A general theory of helium-like ions. **82g:81118**
Baryševskiĭ, V. G. (*with* Kuten, S. A.) The quadrupole moment of hydrogen-like atoms. **82c:81160**
Baxter, J. R. Inequalities for potentials of particle systems. **82j:81065**
Broškina, N. B. *See* **Azimov, S. A.; et al., 82g:81117**
Čudakov, V. M. *See* **Azimov, S. A.; et al., 82g:81117**
Greenspan, Donald A new computer approach to the modeling of atoms, ions and molecules. I. Hydrogen. **82i:81162**
Haitov, M. S. *See* **Azimov, S. A.; et al., 82g:81117**
Hall, Richard L. Complement to the Rayleigh-Ritz principle for the energy spectrum of a system composed of identical particles. **82g:81119**
Hoffmann-Ostenhof, Maria *See* **Ahlrichs, Reinhart; et al., 82j:81064**
Hoffmann-Ostenhof, Thomas *See* **Ahlrichs, Reinhart; et al., 82j:81064**
de Kertanguy, A. (*with* Percival, Ian C.; Richards, Derek) Classical theory of the static Stark effect for weak fields. **82c:81161**
Kesarwani, R. N. (*with* Varshni, Y. P.) Improved variational solution of the Thomas-Fermi equation for atoms. **82c:81162**
Kuten, S. A. *See* **Baryševskiĭ, V. G., 82c:81160**
Lai, C. S. Calculation of the Stark effect in hydrogen atoms by using the hypervirial relations. **82i:81163**
Menzala, Gustavo Perla On a Hartree type equation: existence of regular solutions. **82a:81056**
Morgan, John D., III *See* **Ahlrichs, Reinhart; et al., 82j:81064**
Pearson, Ralph G. Semiclassical model for atoms. **82i:81164**
Percival, Ian C. *See* **de Kertanguy, A.; et al., 82c:81161**
Rashid, M. A. Expansion of a function about a displaced center. **82f:81091**
Richards, Derek *See* **de Kertanguy, A.; et al., 82c:81161**
Sane, K. V. (*with* Saxena, R. P.) On the evaluation of one-centre matrix elements of a modified Coulomb interaction operator. **82c:81163**
Saxena, R. P. *See* **Sane, K. V., 82c:81163**
Varshni, Y. P. *See* **Kesarwani, R. N., 82c:81162**

secondary classifications:

Anderson, Norman (*with* Arthurs, Arnold Magowan) Variational solutions of the Thomas-Fermi equation. **(82g:81009)**
Aniščenko, R. I. Theorems on the existence of a solution of a problem of a free negative ion in the Thomas-Fermi-Dirac model. (Russian) **(82f:34018)**
Arthurs, Arnold Magowan *See* **Anderson, Norman, (82g:81009)**
Avron, Joseph E. Bender-Wu formulas for the Zeeman effect in hydrogen. **(82c:81030)**
Burrows, B. L. (*with* Perks, A. J.) Complementary variational principles and variational-iterative principles. **(82m:49060)**
Connor, J. N. L. (*with* Farrelly, D.; Mackay, D. C.) Complex angular momentum analysis of diffraction scattering in atomic collisions. **(82d:81137)**
Farrelly, D. *See* **Connor, J. N. L.; et al., (82d:81137)**
Gazeau, J.-P. (*with* Maquet, A.) A new approach to the two-particle Schrödinger bound state problem. **(82d:81019)**
Gerry, C. C. (*with* Inomata, Akira) Path-integral formulation of the Langer modification and its applications to the hydrogen atom. **(82i:81047)**
van Haeringen, H. (*with* Kok, L. P.) Saddle points and critical trajectories associated with Coulomb plus short-range interactions with complex coupling. **(82m:81077)**
See also **Kok, L. P., (82g:81092)**
Inomata, Akira *See* **Gerry, C. C., (82i:81047)**
Kok, L. P. (*with* van Haeringen, H.) On the theory of complex potential scattering. **(82g:81092)**
See also **van Haeringen, H., (82m:81077)**
Lai, C. S. Padé approximants and perturbation theory for screened Coulomb potentials. **(82c:81021)**
Mackay, D. C. *See* **Connor, J. N. L.; et al., (82d:81137)**
Maquet, A. *See* **Gazeau, J.-P., (82d:81019)**
Moats, Richard K. *See* **Silverstone, Harris J., (82e:81012)**
Perks, A. J. *See* **Burrows, B. L., (82m:49060)**
Silverstone, Harris J. (*with* Moats, Richard K.) Practical recursive solution of degenerate Rayleigh-Schrödinger perturbation theory and application to high-order calculations of the Zeeman effect in hydrogen. **(82e:81012)**

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Aono, S. *See* **Deguchi, Kisaboru; et al., 82i:81165**
Bärnighausen, H. Group-subgroup relations between space groups: a useful tool in crystal chemistry. **82b:81139**
Chen, Jin Quan (*with* Wang, Fan; Gao, Mei Juan; Yu, Zu Rong) A new method of calculation for molecular shell model. **82h:81140**
Deguchi, Kisaboru (*with* Nishikawa, K.; Sado, A.; Aono, S.) Generator coordinate method based on coherent states: calculation of nuclear bound and resonance states in molecules. **82i:81165**
Donnelly, Robert A. (*with* Simons, Jack) Complex coordinate rotation of the electron propagator. **82h:81141**
Flurry, R. L., Jr. (*with* Siddall, T. H., III) On the group of the independent-particle Hamiltonian operator. **82j:81066**
Gao, Mei Juan *See* **Chen, Jin Quan; et al., 82h:81140**
Garipov, R. M. The spectrum of the Schrödinger operator of molecules. (Russian) **82i:81096**
Hendeković, Josip (*with* Pavlović, Milica; Sokolić, Franjo) Generalization of Wick's theorem. **82h:81142**
Huang, Keh Ning Novel identities involving coefficients of fractional parentage. **82h:81143**
Iachello, F. Algebraic methods for molecular rotation-vibration spectra. **82d:81169**
Johnson, Bruce R. On hyperspherical coordinates and mapping the internal configurations of a three-body system. **82f:81092**
Mandelzweig, V. B. Matrix elements of two-body operators between three-body hyperspherical basis states. **82c:81164**
Mignaco, Juan A. (*with* Roditi, Itzhak) Ground-state energy of three-body Coulomb systems through hyperspherical harmonics. **82b:81144**
Nishikawa, K. *See* **Deguchi, Kisaboru; et al., 82i:81165**
Pavlović, Milica *See* **Hendeković, Josip; et al., 82h:81142**
Roditi, Itzhak *See* **Mignaco, Juan A., 82b:81144**
Sado, A. *See* **Deguchi, Kisaboru; et al., 82i:81165**
Siddall, T. H., III *See* **Flurry, R. L., Jr., 82j:81066**
Simons, Jack *See* **Donnelly, Robert A., 82h:81141**
Sokolić, Franjo *See* **Hendeković, Josip; et al., 82h:81142**
Sutcliffe, B. T. The Eckart Hamiltonian for molecules—a critical exposition. (*See* **82d:81175**)
Wang, Fan *See* **Chen, Jin Quan; et al., 82h:81140**
Yu, Zu Rong *See* **Chen, Jin Quan; et al., 82h:81140**

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Chen, Jin Quan (*with* Wang, Fan; Gao, Mei Juan) A new approach to the representation theory of finite groups. I. The eigenfunction method for finding characters and irreducible bases. (Chinese) **(82m:20010a)**
(*with* Wang, Fan; Gao, Mei Juan) A new approach to the representation theory of finite groups. II. Intrinsic group and resolution of regular representation. (Chinese. English summary) **(82m:20010b)**
(*with* Gao, Mei Juan; Wang, Fan; Yu, Zu Rong) A new approach to the representation theory of finite groups. III. Application of the eigenfunction method to point groups. (Chinese. English summary) **(82m:20010c)**
Combes, J. M. (*with* Seiler, R.) Spectral properties of atomic and molecular systems. **(82k:81078)**
Fukutome, Hideo The group theoretical structure of fermion many-body systems arising from the canonical anticommutation relation. I. Lie algebras of fermion operators and exact generator coordinate representations of state vectors. **(82h:81058)**
Gao, Mei Juan *See* **Chen, Jin Quan; et al., (82m:20010a); (82m:20010b)** *and* **(82m:20010c)**
Golubev, A. I. (*with* Sadovoĭ, A. A.) Sturm representation of the Green function of noninteracting particles and the multidimensional angular Coulomb function method. (Russian. English summary) **(82c:81168)**
Kent, R. D. (*with* Schlesinger, M.) Unitary group approach to the treatment of mixed-orbital configurations. **(82d:81165)**
Sadovoi, A. A. *See* **Golubev, A. I., (82c:81168)**
Sarma, C. R. Permutation group and interacting subsystems of particles. **(82a:20026)**
Schlesinger, M. *See* **Kent, R. D., (82d:81165)**
Seiler, R. *See* **Combes, J. M., (82k:81078)**
Wang, Fan *See* **Chen, Jin Quan; et al., (82m:20010a); (82m:20010b)** *and* **(82m:20010c)**
Yu, Zu Rong *See* **Chen, Jin Quan; et al., (82m:20010c)**

81G55 Other molecular physics

Anderson, S. G. *See* **Bader, Richard F. W.; et al., 82h:81149a**
Bader, Richard F. W. (*with* Anderson, S. G.; Duke, A. J.) Quantum topology of molecular charge distributions. I. **82h:81149a**
(*with* Nguyen-Dang, T. Tung; Tal, Yoram) Quantum topology of molecular charge distributions. II. Molecular structure and its change. **82h:81149b**
Quantum topology of molecular charge distributions. III. The mechanics of an atom in a molecule. **82h:81149c**
See also **Biegler-König, Friedrich W.; et al., 82i:81166**
Biegler-König, Friedrich W. (*with* Nguyen-Dang, T. Tung; Tal, Yoram; Bader, Richard F. W.; Duke, A. J.) Calculation of the average properties of atoms in molecules. **82i:81166**
Brüggemann, R. (*with* Voitländer, J.) Eine Beschreibung von Hückel-Parametern mit Hilfe von Kennzahlen. (English summary) **82h:81150**

Brumer, Paul *See* **Jaffé, Charles, 82b:81145**
Cummings, P. T. (*with* Morriss, G. P.; Wright, C. C.) Analytic solution of the RISM equation for symmetric diatomics with Yukawa closure. **82h:81151**
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NATO Advanced Study Institute:
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secondary classifications:

Ahlrichs, Reinhart (*with* Hoffmann-Ostenhof, Maria; Hoffmann-Ostenhof, Thomas; Morgan, John D., III) Bounds on the decay of electron densities with screening. **(82j:81064)**
Bartlett, Rodney J. *See* **Purvis, George D., III, (82e:65033)**
Farantos, S. C. (*with* Murrell, J. N.) On the transition from quasiperiodic to stochastic classical motion on real polyatomic potential energy surfaces. **(82f:58060)**
Heller, Eric J. Frozen Gaussians: a very simple semiclassical approximation. **(82j:81032)**
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Hoffmann-Ostenhof, Thomas *See* **Ahlrichs, Reinhart; et al., (82j:81064)**
Kleih, W. *See* **Stumpf, Harald, (82a:82040)**
Mishra, R. K. *See* **Subba Rao, Gita; et al., (82e:92059a)** *and* **(82e:92059b)**
Morgan, John D., III *See* **Ahlrichs, Reinhart; et al., (82j:81064)**
Murrell, J. N. *See* **Farantos, S. C., (82f:58060)**
Payne, Philip W. Analytic construction of Hartree-Fock density matrices. **(82c:81057)**
Purvis, George D., III (*with* Bartlett, Rodney J.) The reduced linear equation method in coupled cluster theory. **(82e:65033)**
Redmon, Lynn T. *See* **Shavitt, Isaiah, (82g:81016)**
Shavitt, Isaiah (*with* Redmon, Lynn T.) Quasidegenerate perturbation theories. A canonical Van Vleck formalism and its relationship to other approaches. **(82g:81016)**
Stumpf, Harald (*with* Kleih, W.) Quantum statistical derivation of rate equations for electronic processes in polar crystals with external electric field. **(82a:82040)**
Subba Rao, Gita (*with* Tyagi, R. S.; Mishra, R. K.) Calculation of the minimum energy conformation of biomolecules using a global optimization technique. I. Methodology and application to a model molecular fragment (normal pentane). **(82e:92059a)**
(*with* Tyagi, R. S.; Mishra, R. K.) Calculation of the minimum energy conformation of biomolecules using a global optimization technique. II. Conformation of *N*-acetylglycine *N*-methyl amide, a model dipeptide unit. **(82e:92059b)**
Truskova, N. F. *See* **Vukajlović, F. R., (82h:81026)**
Tyagi, R. S. *See* **Subba Rao, Gita; et al., (82e:92059a)** *and* **(82e:92059b)**
Vukajlović, F. R. (*with* Truskova, N. F.) Algebra of the incomplete integrals of the quantum-mechanical two-center problem. **(82h:81026)**

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Biran, B. Carathéodory's canonical field equations. **82c:81166**
Simonov, Ju. A. Multidimensional stable relativistic solitons. **82a:81057**

secondary classifications:

D'Auria, R. (*with* Fré, P.; Regge, Tullio) Coupling of matter to supergravity from the rheonomic symmetry point of view and the origin of the auxiliary fields. **(82e:83038)**
Fré, P. *See* **D'Auria, R.; et al., (82e:83038)**
Gotō, Tetsuo (*with* Naka, Sigefumi; Kamimura, Kiyoshi) On the bi-local model and string model. **(82f:81075)**
Haubold, H. J. (*with* John, R. W.) Closed-form evaluation and approximation considerations of the nonresonant thermonuclear reaction rate. **(82d:85004)**
Iranzo, V. (*with* Llosa, Josep; Marquès, F.; Molina, A.) An exactly solvable model in predictive relativistic mechanics. I. **(82m:83003)**
John, R. W. *See* **Haubold, H. J., (82d:85004)**
Kamimura, Kiyoshi *See* **Gotō, Tetsuo; et al., (82f:81075)**
Llosa, Josep *See* **Iranzo, V.; et al., (82m:83003)**
Marquès, F. *See* **Iranzo, V.; et al., (82m:83003)**
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Regge, Tullio *See* **D'Auria, R.; et al., (82e:83038)**

81Hxx Quantum mechanics of many-body systems

Adamowski, J. (*with* Gerlach, Bernd; Leschke, Hajo) Feynman's approach to the polaron problem generalized to arbitrary quadratic actions. (*See* **82b:81005**)
Gerlach, Bernd *See* **Adamowski, J.; et al., (*See* 82b:81005)**
Leschke, Hajo *See* **Adamowski, J.; et al., (*See* 82b:81005)**

secondary classifications:

Economou, E. N. ★Green's functions in quantum physics. **(82j:81001)**

81H10 Nuclear structure [See also 81G35.]

Barentzen, H. (*with* Olbrich, G.; O'Brien, M. C. M.) An approximate analytical treatment of the $E\otimes\varepsilon$ Jahn-Teller effect. **82c:81167**
Feng, Da Hsuan *See* **Wu, Cheng Li, 82i:81168**
Gutierrez, G. (*with* Plastino, A.) A systematic approach to the Hartree-Fock problem in the thermodynamic limit. **82k:81097**
Iachello, F. (*with* Kuyucak, S.) Interacting boson-fermion model of collective states. I. The spin (6) limit. **82m:81088**
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Moshinsky, M. (*with* Seligman, Thomas H.) Canonical transformations relating the oscillator and Coulomb problems and their relevance for collective motions. **82k:81098**
Nenciu, A. (*with* Nenciu, G.) Dynamics of Bloch electrons in external electric fields. I. Bounds for interband transitions and effective Wannier Hamiltonians. **82j:81069**
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Strobel, George L. Ground states of a few gravitating neutrons. **82j:81070**
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Weiguny, A. On the relation between the interacting boson model of Arima and Iachello and the collective model of Bohr and Mottelson. **82i:81167**
Wu, Cheng Li (*with* Feng, Da Hsuan) The boson-fermion hybrid representation formulation. I. **82i:81168**

secondary classifications:

Barnsley, M. F. (*with* Turchetti, G.) Bounding methods in nuclear physics. **(82j:81062)**
Chacón, E. (*with* Moshinsky, M.; Vanagas, V. V.) Confrontation of macroscopic and microscopic nuclear collective models. **(82j:81059)**
Giraud, B. G. A few questions of numerical and functional analysis for the many body problem in nuclear physics. **(82i:81157)**
Hall, Richard L. Energy trajectories for the N-boson problem by the method of potential envelopes. **(82c:81015)**
John, Gero *See* **Kramer, Peter; et al., (82m:81085)**
Kramer, Peter (*with* John, Gero; Schenzle, Dieter) ★Group theory and the interaction of composite nucleon systems. **(82m:81085)**
Kuratsuji, Hiroshi (*with* Suzuki, Tōru) Path integral approach to many-nucleon systems and time-dependent Hartree-Fock. **(82d:81048)**
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Payne, Philip W. Analytic construction of Hartree-Fock density matrices. **(82c:81057)**
Reinhardt, Hugo Semiclassical theory of nuclear fission. **(82i:81158)**
Rosensteel, G. (*with* Rowe, D. J.) On the algebraic formulation of collective models. III. The symplectic shell model of collective motion. **(82e:81057b)**
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Rowe, D. J. (*with* Rosensteel, G.) On the algebraic formulation of collective models. II. Collective and intrinsic submanifolds. **(82e:81057a)**
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Schenzle, Dieter *See* **Kramer, Peter; et al., (82m:81085)**
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81H20 Solid state band theory

Balabaev, N. K. (*with* Lahno, V. D.) Soliton solutions in the theory of a polaron. (Russian. English summary) **82b:81148**
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Maruško, I. A On quantum theory of the force constant matrix of polyatomic systems. (Russian summary) **82j:81071**
Yamasaki, Shuichiro (*with* Hirooka, Masahiko) Three-particle correlations in the ground state of a Bose fluid. **82m:81089**

secondary classifications:

Haldane, F. D. M. Demonstration of the "Luttinger liquid" character of Bethe-ansatz-soluble models of 1-D quantum fluids. **(82a:82012)**
Schupfner, J. On the theory of thermally weighted electron-phonon transition probabilities. **(82b:82065a)**
Errata: "On the theory of thermally weighted electron-phonon transition probabilities". **(82b:82065b)**
Wilcox, Calvin H. Theory of Bloch waves. **(82b:82068)**

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Aderca, J. B. Commutator of an arbitrary superoperator with the "asymptotic" evolution operator of a many-body system. (French summary) **82d:81176**
Bloore, F. J. Configuration spaces of identical particles. **82e:81061**
Brittin, Wesley E. (*with* Sakakura, Arthur Y.) Number operators for composite particles in nonrelativistic many-body theory. **82a:81058**
Giannoni, M. J. Variational derivation of the adiabatic time-dependent Hartree-Fock formalism and generalized Hamiltonian dynamics. **82b:81156**
Ginibre, Jean (*with* Velo, Giorgio) The classical field limit of nonrelativistic bosons. II. Asymptotic expansions for general potentials. **82h:81157**
Girardeau, M. D. Fock-Tani representation for composite particles in a soluble model. **82h:81158**
Golubev, A. I. (*with* Sadovoĭ, A. A.) Sturm representation of the Green function of noninteracting particles and the multidimensional angular Coulomb function method. (Russian. English summary) **82c:81168**
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Harris, Frank E. (*with* Jeziorski, Bogumil; Monkhorst, Hendrik J.) Contraction theorem for the algebraic reduction of (anti)commutators involving operator strings. **82d:81177**
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Jeziorski, Bogumil *See* **Harris, Frank E.; et al., 82d:81177** *and* **Monkhorst, Hendrik J.; et al., 82d:81178**
Monkhorst, Hendrik J. (*with* Jeziorski, Bogumil; Harris, Frank E.) Recursive scheme for order-by-order many-body perturbation theory. **82d:81178**
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Rosensteel, G. *See* **Rowe, D. J.; et al., 82c:81169**
Rowe, D. J. (*with* Ryman, A.; Rosensteel, G.) Many-body quantum mechanics as a symplectic dynamical system. **82c:81169**
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Velo, Giorgio *See* **Ginibre, Jean, 82h:81157**

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Baksler, Erik Analytic scattering theory of quantum mechanical three-body systems. **(82b:81106)**
Barcza, S. Restricted quantum-mechanical three-body problems. II. A general theory of helium-like ions. **(82g:81118)**
Belokolos, E. D. The Peierls-Fröhlich problem and potentials with a finite number of gaps. II. (Russian. English summary) **(82m:82035)**
Cabot, M. (*with* Putterman, S.) Renormalized classical nonlinear hydrodynamics, quantum mode coupling and quantum theory of interacting phonons. **(82i:76106)**
Creamer, Dennis B. (*with* Thacker, H. B.; Wilkinson, David) Quantum Gel'fand-Levitan method as a generalized Jordan-Wigner transformation. **(82h:81127)**
Hendeković, Josip (*with* Pavlović, Milica; Sokolić, Franjo) Generalization of Wick's theorem. **(82h:81142)**
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Kuratsuji, Hiroshi A path integral formalism of collective motion. **(82d:81049)**
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Makai, Endre On a transformation of Gronwall concerning the three-body problem of quantum mechanics. **(82m:81013)**
Micnas, R. (*with* Kishore, R.) Self-consistent many-body theory for the standard basis operator Green's functions. **(82i:82020)**
Pavlović, Milica *See* **Hendeković, Josip; et al., (82h:81142)**
Prakash, J. S. k-particle Green function diagrams and the restriction of irreducible representations of a group to its subgroups. **(82e:81021)**
Putterman, S. *See* **Cabot, M., (82i:76106)**
Raghuwanshi, S. S. (*with* Sharma, L. K.) Three-body problem for general even power potential with applications. **(82d:81128)**
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Sharma, L. K. *See* **Raghuwanshi, S. S., (82d:81128)**
Siedentop, Heinz K. H. On the relation between the Hellmann energy functional and the ground state energy of an N-fermion system. **(82m:81015)**
Sokolić, Franjo *See* **Hendeković, Josip; et al., (82h:81142)**
Thacker, H. B. *See* **Creamer, Dennis B.; et al., (82h:81127)**
Voronkov, E. O. (*with* Rossihin, V. V.) On the solution of a nonhomogeneous Schrödinger equation with a model pseudopotential. (Russian. English summary) **(82i:81029)**
Wilkinson, David *See* **Creamer, Dennis B.; et al., (82h:81127)**

81J05 Superconductivity and superfluidity

Baker, George A., Jr. (*with* de Llano, Manuel; Pineda, Justino) New constructive methods for the ground-state energy of quantum fluids. **82k:81099**
Brankov, I. G. *See* **Tončev, N. S., 82g:81124**
Caffarelli, Luis A. (*with* Friedman, Avner; Visintin, Augusto) A free boundary problem describing transition in a superconductor. **82k:81100**
Capel, H. W. *See* **Nijhoff, F. W., 82h:81159**
Christiansen, P. L. (*with* Olsen, O. H.) Reflection of fluxons on a Josephson line cavity. **82b:81150**
Eckern, Ulrich Quasiclassical approach to kinetic equations for superfluid ^{3}Helium: general theory and application to the spin dynamics. **82k:81101**
Friedman, Avner *See* **Caffarelli, Luis A.; et al., 82k:81100**
Fusco-Girard, M. (*with* Mancini, F.; Marinaro, M.) Electrodynamics of superconductors as a consequence of local gauge invariance. **82d:81179**
Golo, V. L. Nonlinear regimes in spin dynamics of superfluid ^{3}He. **82g:81123**
Gregorash, D. (*with* Papini, G.) A unified theory of gravitation and electromagnetism for charged superfluids. **82c:81170**
Kawamoto, Hiroshi Sine-Gordon field with spatial boundary condition and application to Josephson junction. **82m:81090**
Kurihara, Susumu Exact soliton solution for superfluid film dynamics. **82m:81091**
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Mancini, F. *See* **Fusco-Girard, M.; et al., 82d:81179**
Marinaro, M. *See* **Fusco-Girard, M.; et al., 82d:81179**
Nagel, Jonathan Allen *See* **Rogovin, D.; et al., 82c:81171**
Nerenberg, M. A. Mutual synchronization in a system of differential equations. **82i:81169**
Nijhoff, F. W. (*with* Capel, H. W.) Separable interactions and liquid ^{3}He. **82h:81159**
Olsen, O. H. *See* **Christiansen, P. L., 82b:81150**
Papini, G. *See* **Gregorash, D., 82c:81170**
Parmenter, R. H. The quantum-lattice-gas model applied to the case of finite superfluid flow in ^{4}He. **82i:81170**
Pineda, Justino *See* **Baker, George A., Jr.; et al., 82k:81099**
Reichl, L. E. Microscopic modes in a Fermi superfluid. I. Linearized kinetic equations. **82d:81180a**
Microscopic modes in a Fermi superfluid. II. Dispersion relations. **82d:81180b**
Rogovin, D. (*with* Nagel, Jonathan Allen; Scully, Marlan O.) Quantum theory of the dc Josephson effect: current-biased eigenstates and excitation spectrum. **82c:81171**
Saam, W. F. Quantum theory of superfluidity and its onset in Bose films. **82c:81172**
Scully, Marlan O. *See* **Rogovin, D.; et al., 82c:81171**
Solomon, A. I. Group theory and superfluid systems. (*See* **82j:82002**)
Dynamical group model of superfluid helium three. **82i:81171**
Tolmačev, V. V. *See* **Zaĭcev, Ju. N., 82i:81172**
Tončev, N. S. (*with* Brankov, I. G.) On the S-D model for coexistence of ferromagnetism and superconductivity. **82g:81124**
Visintin, Augusto *See* **Caffarelli, Luis A.; et al., 82k:81100**
Wiegel, Frederik W. The interacting Bose fluid: path integral representations and renormalization group approach. **82h:81151**
Zaĭcev, Ju. N. (*with* Tolmačev, V. V.) Dissipative equations of two-fluid hydrodynamics of superfluid helium. (Russian) **82i:81172**

secondary classifications:

Aoki, Toshizumi (*with* Homma, Shigeo; Nakano, Huzio) Collective modes in the quantum lattice or three-dimensional XY model. I. **(82k:82049)**
Berman, V. S. (*with* Danilov, Ju. A.) Group properties of the generalized Landau-Ginzburg equation. (Russian) **(82k:80006)**
Bose, Samir Kumar Gauge symmetry and its breakdown: the example of a BCS superconductor. **(82h:81067)**
Brown, K. J. (*with* Dunne, P. C.; Gardner, Robert A.) A semilinear parabolic system arising in the theory of superconductivity. **(82g:35052)**
Bullough, Robin K. (*with* Caudrey, Philip J.; Gibbs, H. M.) The double sine-Gordon equations: a physically applicable system of equations. (*See* **82m:35001**)
Caudrey, Philip J. *See* **Bullough, Robin K.; et al., (*See* 82m:35001)**
Danilov, Ju. A. *See* **Berman, V. S., (82k:80006)**
Diehl, H. W. Derivation of the nonlinear σ-model from the O(n) Ginsburg-Landau-Wilson model in the low-temperature limit. **(82c:81079)**
Dunne, P. C. *See* **Brown, K. J.; et al., (82g:35052)**
Fröhlich, Jürg (*with* Park, Yong Moon) Correlation inequalities and the thermodynamic limit for classical and quantum continuous systems. II. Bose-Einstein and Fermi-Dirac statistics. **(82g:82006)**
Gardner, Robert A. *See* **Brown, K. J.; et al., (82g:35052)**
Gibbs, H. M. *See* **Bullough, Robin K.; et al., (*See* 82m:35001)**
Gregorash, D. (*with* Papini, G.) Weyl-Dirac theory and superconductivity. **(82i:83066)**
Gunton, James D. *See* **San Miguel, M., (82c:82036)**
Homma, Shigeo *See* **Aoki, Toshizumi; et al., (82k:82049)**
Nakano, Huzio *See* **Aoki, Toshizumi; et al., (82k:82049)**
Nelson, David R. *See* **Toner, John, (82c:82019)**
Ni, Guang Jiong (*with* Su, Ru Keng) Vacuum spontaneously broken symmetry of Higgs field and Bose condensation. **(82k:81074)**
Papini, G. *See* **Gregorash, D., (82i:83066)**
Park, Yong Moon *See* **Fröhlich, Jürg, (82g:82006)**
San Miguel, M. (*with* Gunton, James D.) Metastability in tricritical systems. **(82c:82036)**
Su, Ru Keng *See* **Ni, Guang Jiong, (82k:81074)**
Toner, John (*with* Nelson, David R.) Smectic, cholesteric, and Rayleigh-Bénard order in two dimensions. **(82c:82019)**

81K05 Quantum optics

Ablowitz, Mark J. (*with* Kodama, Yuji) Transverse instability of one-dimensional transparent optical pulses in resonant media. **82c:81173**

Abram, Izo I. (*with* Hochstrasser, R. M.) Optical coherence properties of collective molecular systems: a comparison of the statistical and quantum approaches. **82f:81096**

Anandan, J. Quantum interference and the classical limit. **82c:81174**

Antoranz, J. C. *See* **Velarde, M. G., 82b:81158**

Arecchi, F. T. Experimental aspects of transition phenomena in quantum optics. (*See* **82k:00028**)

Arimitsu, Toshihico Correction to the laser master equation. **82b:81152**

Averbuh, I. Š. *See* **Kovarskiĭ, V. A.; et al., 82f:81098**

Bandilla, A. *See* **Voigt, H., 82i:81178**

Baranov, S. A. *See* **Kovarskiĭ, V. A.; et al., 82f:81098**

Barron, L. D. Optical activity and time reversal. **82i:81173**

Białynicki-Birula, I. (*with* Cao Long Van) Energy levels of dressed atoms and resonance phenomena. **82h:81160a**

Bonifacio, R. (*with* Lugiato, L. A.) Atomic cooperation in quantum optics: superfluorescence and optical bistability. (*See* **82k:00028**)

Brockman, M. W. (*with* Moscowitz, Albert) Macroscopic sum rules in natural optical activity. **82h:81161**

Bullough, Robin K. (*with* Caudrey, Philip J.; Gibbs, H. M.) The double sine-Gordon equations: a physically applicable system of equations. (*See* **82m:35001**)

Cao Long Van Application of the phase representation to the theory of resonance fluorescence. **82h:81160b**

See also **Białynicki-Birula, I., 82h:81160a**

Carmichael, H. J. Analytical and numerical results for the steady state in cooperative resonance fluorescence. **82g:81125**

Carusotto, Salvatore Quantum statistics of light after two-photon absorption and emission processes. (French and German summaries) **82c:81175**

Caudrey, Philip J. *See* **Bullough, Robin K.; et al., (*See* 82m:35001)**

Compagno, G. (*with* Panzarella, A.; Persico, F.) A new phase transition in the Dicke Hamiltonian. **82b:81153**

Cook, Richard J. Photon number statistics in resonance fluorescence. **82c:81176**

Dembiński, S. T. Laser with saturable absorber. Fluctuations and stability. (*See* **82k:00028**)

Demidenko, A. A. Relaxation of a two-level quantum subsystem in the eigenstate basis. (Russian. English summary) **82c:81177**

Eberly, J. H. *See* **Hioe, F. T., 82i:81174**

Faisal, F. H. M. (*with* Moloney, J. V.) Time-dependent theory of non-Hermitian Schrödinger equation: application to mutiphoton-induced ionisation decay of atoms. **82j:81073**

Fedotov, S. A. Phase transition in a model two-level system. (Russian) **82h:81162**

Gawędzki, Krzysztof (*with* Rządzewski, Kazimierz) No-go theorem for the superradiant phase transition without dipole approximation. **82d:81181**

Gesztesy, F. (*with* Mitter, H.) A note on quasiperiodic states. **82f:81097**

Gibbs, H. M. *See* **Bullough, Robin K.; et al., (*See* 82m:35001)**

González-Díaz, P. F. Analytical solution for the change of Raman transitions quantum statistics. **82m:81092**

Grigor'ev, S. V. The coherent channel of undulatory radiation. (Russian) **82d:81182**

Helstrom, Carl W. Detection of quantum signals of random phase in thermal noise. **82a:81059**

Henin, F. Approach to equilibrium of a two-level system interacting with the electromagnetic field. **82j:81074**

Hioe, F. T. (*with* Eberly, J. H.) *N*-level coherence vector and higher conservation laws in quantum optics and quantum mechanics. **82i:81174**

Hochstrasser, R. M. *See* **Abram, Izo I., 82f:81096**

Jarunin, V. S. *See* **Kir'janov, V. B., 82c:81178**

Kayanuma, Yosuke Direct solution of the eigenvalue problem of the damping superoperator for a boson field. **82b:81154**

Kimura, Minoru Mean field theory for ground state of superradiance. **82b:81155**

Thermodynamics and electrodynamics of superradiant phase. **82i:81175**

Kir'janov, V. B. (*with* Jarunin, V. S.) Superradiation in the Lee model. (Russian. English summary) **82c:81178**

Kirsanov, B. P. Self-transparency in ruby with allowance for degeneration of levels. (Russian) **82b:81156**

Kitano, Masao (*with* Yabuzaki, T.; Ogawa, Toru) Optical tristability. **82d:81183**

Kodama, Yuji *See* **Ablowitz, Mark J., 82c:81173**

Kovarskiĭ, V. A. (*with* Perel'man, N. F.; Averbuh, I. Š.; Baranov, S. A.; Tordirašku, S. S.) ★Неадиабатические переходы в сильном электромагнитном поле. (Russian) [Nonadiabatic transitions in a strong electromagnetic field] **82f:81098**

Lugiato, L. A. *See* **Bonifacio, R., (*See* 82k:00028)**

Melikjan, A. O. (*with* Simonjan, K. H.) A two-level system in a field of two intense waves. (Russian) **82d:81184**

Michalska-Trautman, R. Exact solution of the initial eigenvalue problem for coherent pulse propagation. **82h:81157**

Milonni, P. W. Quantum mechanics of the Einstein-Hopf model. **82c:81179**

Mitter, H. *See* **Gesztesy, F., 82f:81097**

Mohr, Ulrike Saturated multi-photon-absorption of a nonmonochromatic quantized field. (German summary) **82i:81176**

Moloney, J. V. *See* **Faisal, F. H. M., 82j:81073**

Moscowitz, Albert *See* **Brockman, M. W., 82h:81161**

Ogawa, Toru *See* **Kitano, Masao; et al., 82d:81183**

Orszag, Miguel *See* **Ramirez, Ricardo, 82h:81163**

Panzarella, A. *See* **Compagno, G.; et al., 82b:81153**

Perel'man, N. F. *See* **Kovarskiĭ, V. A.; et al., 82f:81098**

Peřina, J. *See* **Pieczonková, A., 82j:81075**

Persico, F. *See* **Compagno, G.; et al., 82b:81153**

Pfeifer, Peter Estimates of the A^2-term in the interaction of matter with radiation. **82d:81185**

Pieczonková, A. (*with* Peřina, J.) Statistical properties of Brillouin scattering. **82j:81075**

Polder, D. *See* **Schuurmans, M. F. H., 82f:81099**

Ramirez, Ricardo (*with* Orszag, Miguel) Exact solution of the Dicke model for the interaction of one atom with the electromagnetic field. **82h:81163**

Rządzewski, Kazimierz *See* **Gawędzki, Krzysztof, 82d:81181**

Schuurmans, M. F. H. (*with* Polder, D.) Superfluorescence and amplified spontaneous emission: a unified theory. **82f:81099**

Simonjan, K. H. *See* **Melikjan, A. O., 82d:81184**

Su, Zhao Bing *See* **Zhou, Guang Zhao, 82h:81165**

Sudarshan, E. C. G. Quantum theory of radiative transfer. **82h:81164**

Swain, S. Master equation derivation of quantum regression theorem. **82i:81177**

Tan, Wei Han On the exact solution of the stationary multimode laser rate equations. (Chinese. English summary) **82m:81093**

Tordirašku, S. S. *See* **Kovarskiĭ, V. A.; et al., 82f:81098**

Velarde, M. G. (*with* Antoranz, J. C.) Laser with saturable absorber and two-component Bénard convection: limit cycle behaviour. **82b:81158**

Voigt, H. (*with* Bandilla, A.) The density matrix for single-mode light after k-photon absorption. (German summary) **82i:81178**

Wiegand, M. A quantum statistical proof of von Laue's theorem on entropy of partially coherent radiation. **82b:81159**

Wódkiewicz, K. Matrix-continued fraction solutions of some stochastic equations with random telegraph noise. **82i:81179**

Yabuzaki, T. *See* **Kitano, Masao; et al., 82d:81183**

Zhou, Guang Zhao (*with* Su, Zhao Bing) On the Goldstone mode in the stationary state of a nonequilibrium dissipative system. (Chinese. English summary) **82h:81165**

secondary classifications:

Bastiaans, Martin J. The Wigner distribution function of partially coherent light. (French and German summaries) **(82i:78002)**

Bogdanov, E. I. A classical analogue of superradiative phase transition. (Russian) **(82d:82027)**

Bogoljubov, N. N., Jr. (*with* Vozjakov, V. I.; Plečko, V. N.) Many-boson averages for Dicke-type model systems. (Russian. English summary) **(82j:82021)**

Brézis, Haïm Nonlinear evolution equations of Schrödinger type. **(82c:35033)**

Chand, Prakash Necessary condition for a coherent state to remain coherent. **(82c:81048)**

D'Souza, Maryna (*with* Kumar, Arvind; D'Souza, Richard) Nonlinear resonant transient and steady-state response in a classical model. **(82i:78029)**

D'Souza, Richard *See* **D'Souza, Maryna; et al., (82i:78029)**

Dubrovin, B. A. (*with* Novikov, S. P.) Fundamental states in a periodic field. Magnetic Bloch functions and vector bundles. (Russian) **(82c:81181)**

Fonda, L. General theory of the ionization of an atom by an electrostatic field. (Italian and Russian summaries) **(82k:81092)**

Glauber, Roy *See* **Haake, Fritz; et al., (82f:81039)**

Gordiec, B. F. (*with* Osipov, A. I.; Šelepin, L. A.) ★Кинетические процессы в газах и молекулярные лазеры. (Russian) [Kinetic processes in gases and molecular lasers] **(82d:82048)**

Haake, Fritz (*with* Haus, Joseph W.; Glauber, Roy) Passage-time statistics for the decay of unstable equilibrium states. **(82f:81039)**

Haken, Hermann Self-organization through increase of number of components. **(82j:82074)**

See also **Pattern formation by dynamic systems and pattern recognition, (82k:00028)**

Hasegawa, Hiroshi (*with* Nakagomi, Teruaki; Mabuchi, M.; Kondo, Kazuo) Nonequilibrium thermodynamics of lasing and bistable optical systems. **(82a:82022)**

Haus, Joseph W. *See* **Haake, Fritz; et al., (82f:81039)**

Hudák, Ondrej The double sine-Gordon equation: on the nature of internal oscillations of the 2π-kink. **(82m:81012)**

Jannussis, A. D. (*with* Patargias, N.; Papaloucas, L. C.) Connection between generalized Glauber operators and two-photon coherent states of the radiation field. **(82h:81022)**

Kondo, Kazuo *See* **Hasegawa, Hiroshi; et al., (82a:82022)**

Kumar, Arvind *See* **D'Souza, Maryna; et al., (82i:78029)**

Mabuchi, M. *See* **Hasegawa, Hiroshi; et al., (82a:82022)**

Mańka, R. The spontaneous coherent state transition in the φ^4-field model with an image mass. **(82a:81023)**

McLaughlin, David W. A physical description of the spectral transform. **(82h:35143)**

Nakagomi, Teruaki *See* **Hasegawa, Hiroshi; et al., (82a:82022)**

Newell, Alan C. Bifurcation and nonlinear focusing. (*See* **82k:00028**)

Novikov, S. P. *See* **Dubrovin, B. A., (82c:81181)**

Osipov, A. I. *See* **Gordiec, B. F.; et al., (82d:82048)**

Papaloucas, L. C. *See* **Jannussis, A. D.; et al., (82h:81022)**

Patargias, N. *See* **Jannussis, A. D.; et al., (82h:81022)**

Plečko, V. N. *See* **Bogoljubov, N. N., Jr.; et al., (82j:82021)**

Šelepin, L. A. *See* **Gordiec, B. F.; et al., (82d:82048)**

Siniveè, V. Analysis of the quantum kinetic Bloch equations. (Russian. Estonian and English summaries) **(82f:82031)**

Stratonovič, R. L. Phase transitions in nonequilibrium radiophysical systems. **(82f:82020)**

Veklenko, B. A. The density matrix of a subsystem under conditions of thermodynamic equilibrium. (Russian) **(82f:82033)**

Vozjakov, V. I. *See* **Bogoljubov, N. N., Jr.; et al., (82j:82021)**

Garmisch-Partenkirchen ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

Pattern formation by dynamic systems and pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

Pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

Symposium:

Synergetics ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

Synergetics ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

81L05 Quantum electrodynamics

Alvarez-Estrada, R. F. The polaron model revisited: rigorous construction of the dressed electron. (French summary) **82c:81180**

Bechler, Adam Two-point Green's functions in quantum electrodynamics at finite temperature and density. **82i:81180**

Bubbinder, I. L. (*with* Fradkin, E. S.; Gitman, D. M.) Quantum electrodynamics in curved space-time. **82i:81181**

Burkitt, A. N. *See* **Davies, Brian, 82d:81188**

Calmet, J. (*with* Visconti, A.) Computing methods in quantum electrodynamics. **82d:81186**

Cavalleri, G. The propagator of stochastic electrodynamics. **82a:81060**

Čižov, M. V. *See* **Kadyševskiĭ, V. G.; et al., 82c:81182**

Danilov, G. S. (*with* Djatlov, I. T.; Petrov, V. Ju.) A calculation of the evolution operator and of the quark structure of states in two-dimensional massless electrodynamics. **82d:81187**

Davies, Brian (*with* Burkitt, A. N.) On the relationship between quantum, random and semiclassical electrodynamics. **82d:81188**

Djatlov, I. T. *See* **Danilov, G. S.; et al., 82d:81187**

Dubrovin, B. A. (*with* Novikov, S. P.) Fundamental states in a periodic field. Magnetic Bloch functions and vector bundles. (Russian) **82c:81181**

Fradkin, E. S. *See* **Bubbinder, I. L.; et al., 82i:81181**

Gessner, W. The maximality of Lorentz spaces and their importance with respect to classical and quantum electrodynamics. **82k:81102**

Gitman, D. M. *See* **Bubbinder, I. L.; et al., 82i:81181**

Kadyševskiĭ, V. G. (*with* Mateev, M. D.; Čižov, M. V.) On the problem of the muon-electron mass difference. (Russian. English summary) **82c:81182**

Laursen, M. L. (*with* Samuel, M. A.) The n-bubble diagram contribution to g-2. **82h:81166**

Mateev, M. D. *See* **Kadyševskiĭ, V. G.; et al., 82c:81182**

Mostepanenko, V. M. Analogies of theories of vacuum quantum effects in gravitational and electromagnetic fields. **82c:81183**

Novikov, S. P. *See* **Dubrovin, B. A., 82c:81181**

Perlman, H. S. *See* **Troup, G. J., 82i:81182**

Petrov, V. Ju. *See* **Danilov, G. S.; et al., 82d:81187**

Reeh, H. (*with* Requardt, Manfred) Some properties of the electric charge operator. **82g:81126**

Requardt, Manfred *See* **Reeh, H., 82g:81126**

Rupertsberger, H. W. Relicts of topology: the axial-vector anomaly in four-dimensional QED. **82h:81167**

Rzążewski, Kazimierz (*with* Wódkiewicz, K.) Gauge-independent canonical formalism for nonrelativistic electrodynamics. **82c:81184**

Samuel, M. A. *See* **Laursen, M. L., 82h:81166**

Slim, H. A. Spectral ansatz in quantum electrodynamics. Spectral functions and gauge transformations. **82c:81185**

Troup, G. J. (*with* Perlman, H. S.) Coherent states and Fock states at very high average photon numbers. **82i:81182**

Visconti, A. *See* **Calmet, J., 82d:81186**

Wódkiewicz, K. *See* **Rzążewski, Kazimierz, 82c:81184**

secondary classifications:

Arai, Asao Selfadjointness and spectrum of Hamiltonians in nonrelativistic quantum electrodynamics. **(82g:81013)**

Beresteckiĭ, V. B. (*with* Lifšic, E. M.; Pitaevskiĭ, L. P.) ★Теоретическая физика ("Ландау-Лифшиц"). Том IV. (Russian) [Theoretical physics ("Landau-Lifšic"). Vol. IV] **(82g:81001)**

Berkov, A. V. (*with* Nikitin, Ju. P.; Rozental', I. L.) Two-dimensional field theories. **(82i:81074)**

Bocchieri, P. (*with* Loinger, A.) Locality of quantum electromagnetism. **(82c:81142)**

Dolan, L. Hidden symmetry in Yang-Mills theory: a path-dependent gauge transformation. **(82h:81056)**

d'Emilio, E. (*with* Minčev, M. C.) Perturbation theory in covariant gauges for two-dimensional quantum electrodynamics. Some new aspects of confinement. (Italian and Russian summaries) **(82c:81106)**

González Dominguez, A. On some heterodox distributional multiplicative products. **(82d:46063)**

Gurin, N. I. Covariant expression of the matrix element of spin-$\frac{1}{2}$ particle scattering in a natural basis. (Russian. English summary) **(82d:81139)**

Hodges, A. P. Compton scattering for massless electrons. (*See* **82e:83002**)

Itzykson, Claude (*with* Zuber, Jean Bernard) ★Quantum field theory. **(82h:81002)**

Kastler, Alfred Albert Einstein and the photon concept. (*See* **82b:83002**)

Klotz, A. H. (*with* McInnes, B. T.) On the meaning of the metric hypothesis in the nonsymmetric unified field theory. **(82c:83064)**

Krasnikov, N. V. (*with* Matveev, V. A.; Rubakov, V. A.; Tavhelidze, A. N.; Tokarev, V. F.) The structure of the ground state in two-dimensional massless quantum electrodynamics. (Russian. English summary) **(82h:81060)**

Analyticity and renormalization group. **(82k:81088)**

(Landau, L. D.) *See* **Beresteckiĭ, V. B.; et al., (82g:81001)**

Lifšic, E. M. *See* **Beresteckiĭ, V. B.; et al., (82g:81001)**

Loinger, A. *See* **Bocchieri, P., (82c:81142)**

Matveev, V. A. *See* **Krasnikov, N. V.; et al., (82h:81060)**

McInnes, B. T. *See* **Klotz, A. H., (82c:83064)**

Minčev, M. C. *See* **d'Emilio, E., (82c:81106)**

Nikitin, Ju. P. *See* **Berkov, A. V.; et al., (82i:81074)**

Pitaevskiĭ, L. P. *See* **Beresteckiĭ, V. B.; et al., (82g:81001)**

Rozental', I. L. *See* **Berkov, A. V.; et al., (82i:81074)**

Rubakov, V. A. *See* **Krasnikov, N. V.; et al., (82h:81060)**

Tavhelidze, A. N. *See* **Krasnikov, N. V.; et al., (82h:81060)**

Tokarev, V. F. *See* **Krasnikov, N. V.; et al., (82h:81060)**

Tyburski, L. Even more about gauge theories in 1+1 dimensions. **(82c:81095)**

Zuber, Jean Bernard *See* **Itzykson, Claude, (82h:81002)**

81M05 Relativistic theory

Boutaleb-Joutei, H. (*with* Chakrabarti, Amitabha; Comtet, A.) Gauge field configurations in curved space-times. II. **82e:81062**

(*with* Chakrabarti, Amitabha; Comtet, A.) Gauge field configurations in curved space-times. IV. Self-dual SU(2) fields in multicenter spaces. **82e:81063a**

(*with* Chakrabarti, Amitabha; Comtet, A.) Gauge field configurations in curved space-times. V. Regularity constraints and quantized actions. **82e:81063b**

Chakrabarti, Amitabha *See* **Boutaleb-Joutei, H.; et al., 82e:81062** *and* **82e:81063**

Coester, F. Canonical scattering theory for relativistic particles. (*See* **82h:81117**)

Comtet, A. *See* **Boutaleb-Joutei, H.; et al., 82e:81062** *and* **82e:81063**

Drechsler, W. (*with* Sasaki, Ryu) Solutions of invariant field equations in the (4, 1) de Sitter space. (Italian and Russian summaries) **82c:81186**

Droz-Vincent, Philippe N-body relativistic systems. **82c:81187**

Ford, L. H. Instabilities in interacting quantum field theories in non-Minkowskian spacetimes. **82c:81188**

Frolov, V. M. (*with* Grib, A. A.; Mostepanenko, V. M.) Conformal symmetry breaking and quantization in curved space-time. **82h:81160**

Grib, A. A. *See* **Frolov, V. M.; et al., 82h:81160**

Han, D. (*with* Kim, Y. S.) Yukawa's approach and Dirac's approach to relativistic quantum mechanics. Relativistic harmonic oscillator model. **82b:81161**

Kim, Y. S. *See* **Han, D., 82b:81161**

Mostepanenko, V. M. *See* **Frolov, V. M.; et al., 82h:81160**

Ne'eman, Yuval (*with* Šijački, Djordje) Correction to: "Gravitational interaction of hadrons and leptons: linear (multiplicity-free) bandor and nonlinear spinor unitary irreducible representations of SL(4, R)" [Proc. Nat. Acad. Sci. U.S.A. **76** (1979), no. 2, 561–564; MR 80d:81149]. **82j:81076**

O'Connell, R. F. (*with* Wigner, Eugene P.) Position operators for systems exhibiting the special relativistic relation between momentum and velocity. **82f:81100**

Sasaki, Ryu *See* **Drechsler, W., 82c:81186**

Šijački, Djordje *See* **Ne'eman, Yuval, 82j:81076**

Wigner, Eugene P. *See* **O'Connell, R. F., 82f:81100**

secondary classifications:

Anastassov, A. H. 4-atomism. **(82c:83009)**

Azuma, Takahiro *See* **Nariai, Hidekazu, (82m:81075)**

Berger, Beverly K. Scalar field in the early Universe: coherent-state representation and thermal density matrix. **(82b:83075)**

Bunch, T. S. (*with* Christensen, S. M.; Fulling, S. A.) Massive quantum field theory in two-dimensional Robertson-Walker space-time. **(82b:81082)**

Caldirola, P. Introduction of the chronon in the relativistic theory of the electron. (*See* **82b:83002**)

Christensen, S. M. *See* **Bunch, T. S.; et al., (82b:81082)**

Foussats, Adriana (*with* Laură, Roberto; Zandron, Oscar) Massive spin-1 field in expanding universes and the quantum equivalence principle. **(82f:83096)**

Fulling, S. A. *See* **Bunch, T. S.; et al., (82b:81082)**

de Groot, S. R. On relativistic kinetic theory of transport processes, in particular of neutrino systems. (French summary) **(82a:82052)**

Horwitz, L. P. (*with* Rotbart, F. C.) Nonrelativistic limit of relativistic quantum mechanics. **(82i:81014)**

Laură, Roberto *See* **Foussats, Adriana; et al., (82f:83096)**

Liu, Liao (*with* Xu, Dian Yan) The Hawking evaporation of Dirac particles. (Chinese. English summary) **(82f:83063)**

Nariai, Hidekazu (*with* Azuma, Takahiro) On the definition of a positive frequency part for a quantized scalar field in several Robertson-Walker universes. **(82m:81075)**

Nisimov, E. R. (*with* Pačeva, S. Ĭ.) Bäcklund transformation in the classical massive Thirring model. **(82a:81036)**

Pačeva, S. Ĭ. *See* **Nisimov, E. R., (82a:81036)**

Rotbart, F. C. *See* **Horwitz, L. P., (82i:81014)**

Ruijsenaars, Simon N. M. A positive energy dynamics and scattering theory for directly interacting relativistic particles. **(82g:81100)**

Xu, Dian Yan *See* **Liu, Liao, (82f:83063)**

Zandron, Oscar *See* **Foussats, Adriana; et al., (82f:83096)**

81N05 Mathematically heuristic quantum mechanics (must also be assigned at least one other classification number in this section)

secondary classifications:

Bekenstein, Jacob D. (*with* Parker, Leonard) Path-integral evaluation of Feynman propagator in curved spacetime. **(82f:81024)**

de Boer, W. P. H. Quantum kinetic theory of charged Klein-Gordon particles. I. Quantum distribution function. **(82c:82056a)**

Quantum kinetic theory of charged Klein-Gordon particles. II. Perturbation theory of nonequilibrium statistical Green functions. **(82c:82056b)**

Quantum kinetic theory of charged Klein-Gordon particles. III. Feynman rules and thermal equilibrium. **(82c:82056c)**

Quantum kinetic theory of charged Klein-Gordon particles. IV. Linear kinetic equation. **(82c:82056d)**

Brinati, J. R. (*with* Mizrahi, S. S.) Quantum friction in the c-number picture: the damped harmonic oscillator. **(82f:82068)**

Dumitru, Spiridon ★What are in fact the uncertainty relations? **(82d:81007)**

Mizrahi, S. S. *See* **Brinati, J. R., (82f:82068)**

Ôtsu, Tôzaburô (*with* Watanabe, Tadashi) Generating functions of two-time Green functions for simple systems. II. **(82c:81056)**

Parker, Leonard *See* **Bekenstein, Jacob D., (82f:81024)**

Watanabe, Tadashi *See* **Ôtsu, Tôzaburô, (82c:81056)**

82–XX STATISTICAL PHYSICS, STRUCTURE OF MATTER

secondary classifications:

(Cohen, E. G. D.) *See* **Fundamental problems in statistical mechanics, (82g:82002)**
Enschede ★Fundamental problems in statistical mechanics. V. **(82g:82002)**
Fundamental problems in statistical mechanics ★Fundamental problems in statistical mechanics. V. **(82g:82002)**
Statistical mechanics ★Fundamental problems in statistical mechanics. V. **(82g:82002)**
Summer School:
Fundamental Problems in Statistical Mechanics ★Fundamental problems in statistical mechanics. V. **(82g:82002)**

82–01 Elementary exposition, textbooks

Durczewski, Krzysztof *See* **Klamut, Jan; et al., 82g:82001**
Klamut, Jan (*with* Durczewski, Krzysztof; Sznajd, Józef) ★Wstęp do fizyki przejść fazowych. (Polish) [Introduction to physics of phase transitions] **82g:82001**
Martin-Löf, Anders ★Statistical mechanics and the foundations of thermodynamics. **82i:82001**
Sznajd, Józef *See* **Klamut, Jan; et al., 82g:82001**
Tolman, Richard C. ★The principles of statistical mechanics. **82f:82001**

82–02 Advanced exposition (research surveys, monographs, etc.)

Kac, Mark Some mathematical problems in statistical mechanics. **82i:82002**
Kreuzer, H. J. ★Nonequilibrium thermodynamics and its statistical foundations. **82d:82001**
Singh, Y. (*with* Sinha, S. K.) Semiclassical statistical mechanics of fluids. **82m:82001**
Sinha, S. K. *See* **Singh, Y., 82m:82001**

secondary classifications:

Bratteli, Ola (*with* Robinson, Derek W.) ★Operator algebras and quantum-statistical mechanics. II. **(82k:82013)**
Bullough, Robin K. Solitons: inverse scattering theory and its applications. **(82m:35124)**
Economou, E. N. ★Green's functions in quantum physics. **(82j:81001)**
Hermann, Robert *See* **Hurt, Norman E., (82i:82009)**
Hurt, Norman E. (*with* Hermann, Robert) ★Quantum statistical mechanics and Lie group harmonic analysis. Part A. **(82i:82009)**
Robinson, Derek W. *See* **Bratteli, Ola, (82k:82013)**

82–03 Historical (must also be assigned at least one classification number from Section 01)

Del Rio, J. L. *See* **Garcia-Colin, Leopoldo S.,** (*See* **82h:82001**)
Domb, C. Critical phenomena—a model illustration of scientific method. (*See* **82h:82001**)
(Fok, V. A.) *See* **Krylov, N. S., 82e:82001**
Garcia-Colin, Leopoldo S. (*with* Del Rio, J. L.) Green's contributions to nonequilibrium statistical mechanics revisited. (*See* **82h:82001**)
Hora, Heinrich Einstein's photon distribution for blackbodies and the discovery of the laser. **82i:82003**
Krylov, N. S. ★Works on the foundations of statistical physics. **82e:82001**
Landsberg, P. T. Einstein and statistical thermodynamics. **82j:82001**
(Migdal, A. B.) *See* **Krylov, N. S., 82e:82001**
(Sinai, Ja. G.) *See* **Krylov, N. S., 82e:82001**
Uhlenbeck, George E. Some notes on the relation between fluid mechanics and statistical physics. **82i:82004**
(Wightman, A. S.) *See* **Krylov, N. S., 82e:82001**
(Zeeman, Ju. L.) *See* **Krylov, N. S., 82e:82001**
Biography:
Krylov, N. S. *See* **Krylov, N. S., 82e:82001**

secondary classifications:

(Alihan'jan, A. I.) *See* **Bessarab, M. Ja., (82c:01045)**
Berezin, Ju. A. (*with* Višvkov, V. A.) ★Метод частиц в динамике разреженной плазмы. (Russian) [The particle method in the dynamics of a rarified plasma] **(82i:82048)**
Bernhardtová, Hanelohe On the role of probability theory in the scientific-technological revolution. (Czech) **(82j:01052)**
Bessarab, M. Ja. ★Ландау. (Russian) [Landau] **(82c:01045)**
Bullough, Robin K. (*with* Caudrey, Philip J.) The soliton and its history. (*See* **82m:35001**)
Caudrey, Philip J. *See* **Bullough, Robin K., (*See* 82m:35001)**
Dewel, G. *See* **Prigogine, Ilya, (82f:01132)**
Ehlers, Jürgen On Einstein's life and works. (*See* **82k:01046**)
(Einstein, Albert) *See* **Ezawa, Hiroshi, (82c:01033)**
Ezawa, Hiroshi Einstein's contribution to statistical mechanics, classical and quantum. **(82c:01033)**
Hiebert, Erwin N. Boltzmann's conception of theory construction: the promotion of pluralism, provisionalism, and pragmatic realism. **(82k:01024)**
Javelov, B. E. Einstein and the problem of superconductivity. (Russian) **(82b:01050)**
(Jenkin, Fleeming) *See* **Smith, Crosbie, (82a:01021)**
(Kelvin, William Thomson, Lord) *See* **Smith, Crosbie, (82a:01021)**
Krüger, Lorenz Reduction as a problem. **(82k:01026)**
(Landau, L. D.) *See* **Bessarab, M. Ja., (82c:01045)**
Prigogine, Ilya (*with* Stengers, Isabelle) Le problème de l'invention et la philosophie des sciences. (*See* **82e:00034**)
(*with* Dewel, G.) Pierre Résibois: 1936–1979. **(82f:01132)**
(Résibois, Pierre) *See* **Prigogine, Ilya; et al., (82f:01132)**
Šafranovskiĭ, I. I. ★История кристаллографии. (Russian) [The history of crystallography] **(82i:01033)**
Smith, Crosbie Engineering the universe: William Thomson and Fleeming Jenkin on the nature of matter. **(82a:01021)**
Stengers, Isabelle *See* **Prigogine, Ilya,** (*See* **82e:00034**)
Višvkov, V. A. *See* **Berezin, Ju. A., (82i:82048)**
Wiederkehr, Karl Heinrich Das Weiterwirken der Haüyschen Idee von der Polyedergestalt der Moleküle in der Chemie, die Umgestaltung der Haüyschen Strukturtheorie durch Seeber und Delafosse, und Bravais' Entdeckung der Gittertypen. **(82f:01056)**
Bibliography:
Résibois, Pierre *See* **Prigogine, Ilya; et al., (82f:01132)**
Biography:
Landau, L. D. *See* **Bessarab, M. Ja., (82c:01045)**
Obituary:
Résibois, Pierre *See* **Prigogine, Ilya; et al., (82f:01132)**

82–04 Explicit machine computation and programs (not the theory of computation or programming)

Abraham, D. B. (*with* Smith, Edgar Roderick) Monte Carlo simulation of a planar Ising model roughening transition. **82f:82002**
Beurskens, Paul T. (*with* Prick, Peter A. J.) A fast algorithm for determining phase values for symbols from weighted symbol relations in direct methods. **82d:82002**
Chae, Dong Ghi *See* **Yoon, Kyonggeun; et al., 82c:82001**
Kogut, John B. (*with* Snow, M.; Stone, Michael) Computer simulations of $SU(N)\otimes SU(N)$ spin systems in two dimensions. **82m:82002**
Prick, Peter A. J. *See* **Beurskens, Paul T., 82d:82002**
Ree, Francis H. *See* **Yoon, Kyonggeun; et al., 82c:82001**
Ree, Taikyue *See* **Yoon, Kyonggeun; et al., 82c:82001**
Smith, Edgar Roderick *See* **Abraham, D. B., 82f:82002**
Snow, M. *See* **Kogut, John B.; et al., 82m:82002**
Stone, Michael *See* **Kogut, John B.; et al., 82m:82002**
Yoon, Kyonggeun (*with* Chae, Dong Ghi; Ree, Taikyue; Ree, Francis H.) Computer simulation of a grand canonical ensemble of rodlike molecules. **82c:82001**

secondary classifications:

Blumen, A. (*with* Zumofen, G.) Energy transfer as a random walk on regular lattices. **(82h:82049)**
Czycholl, G. (*with* Kramer, B.) Numerical investigation of the conductivity and electron localization of a one-dimensional disordered system. **(82i:82057)**
De Raedt, Hans (*with* Lagendijk, Ad) Monte Carlo calculation of the thermodynamic properties of a quantum model: a one-dimensional fermion lattice model. **(82h:82023)**
Diederich, S. Time-dependent correlations in the exponential lattice. II. Response functions of the monatomic lattice at low temperatures. **(82i:82069b)**
Kramer, B. *See* **Czycholl, G., (82i:82057)**
Lagendijk, Ad *See* **De Raedt, Hans, (82h:82023)**
Morgenstern, I. Numerically exact solvable random-bond Ising model. **(82k:82043)**
Poljudov, A. N. (*with* Seljandin, B. D.; Sigov, Ju. S.) A three-dimensional kinetic plasma model in a problem of evolution of a Langmuir wave of large amplitude. (Russian) **(82g:82046)**
Reiman, Allan Computer-aided closure of the Lie algebra associated with a nonlinear partial differential equation. **(82j:58006)**
dos Santos, R. R. (*with* Sneddon, L.; Stinchcombe, R. B.) The 2D transverse Ising model at $T=0$: a finite-size rescaling transformation approach. **(82m:82018)**
Seljandin, B. D. *See* **Poljudov, A. N.; et al., (82g:82046)**
Sigov, Ju. S. *See* **Poljudov, A. N.; et al., (82g:82046)**
Sneddon, L. *See* **dos Santos, R. R.; et al., (82m:82018)**
Stinchcombe, R. B. *See* **dos Santos, R. R.; et al., (82m:82018)**
Zumofen, G. *See* **Blumen, A., (82h:82049)**

82–05 Experimental papers

82–06 Proceedings, conferences, etc.

(Accardi, Luigi) *See* **Mathematical problems in the quantum theory of irreversible processes, 82j:82003**
(Beleznay, Ferenc) *See* **New developments in semiconductor physics, 82f:82004**
(Bernasconi, Jakob) *See* **Physics in one dimension, 82g:82003**
(Chao, Kwang Chu) *See* **Equations of state in engineering and research, 82f:82003**
(Cohen, E. G. D.) *See* **Fundamental problems in statistical mechanics, 82g:82002**
(Ferenczi, György) *See* **New developments in semiconductor physics, 82f:82004**
(Ganapol, B. D.) *See* **New frontiers in transport theory, 82k:82001**
(Garrido, Luis) *See* **Systems far from equilibrium, 82g:82004**
(Giber, János) *See* **New developments in semiconductor physics, 82f:82004**
(Glaberson, William I.) *See* **Conference: Collective Phenomena, 82j:82002**
(Gorini, V.) *See* **Mathematical problems in the quantum theory of irreversible processes, 82j:82003**
(Green, Melville S.) *See* **Perspectives in statistical physics, 82h:82001**
(Koverda, V. P.) *See* **Phase transitions and nonequilibrium processes, 82m:82003**
(Langer, James S.) *See* **Conference: Collective Phenomena, 82j:82002**
(Lebowitz, Joel L.) *See* **Conference: Collective Phenomena, 82j:82002**
(Minc, R. I.) *See* **Physical methods for investigating the solid state, 82h:82002**
(Muratov, G. N.) *See* **Phase transitions and nonequilibrium processes, 82m:82003**
(Parravicini, G.) *See* **Mathematical problems in the quantum theory of irreversible processes, 82j:82003**
(Raveché, H. J.) *See* **Perspectives in statistical physics, 82h:82001**
(Robinson, Robert L., Jr.) *See* **Equations of state in engineering and research, 82f:82003**
(Šapiro, V. D.) *See* **Nonlinear and turbulent processes in physics, 82c:82002**

(Schneider, Toni) *See* **Physics in one dimension, 82g:82003**
(Seidov, Ju. M.) *See* **Methods of statistical mechanics, 82j:82004**
(Ševčenko, V. I.) *See* **Nonlinear and turbulent processes in physics, 82c:82002**
(Stephenson, John) *See* **Statphys, 82d:82003**
(Suščinskiĭ, M. M.) *See* **Statistical and coherent methods of investigation of physical systems, 82m:82004**
Barcelona ★Systems far from equilibrium. **82g:82004**
Bibliography:
Green, Melville S. ★Perspectives in statistical physics. **82h:82001**
Collective phenomena ★Third International Conference on Collective Phenomena. **82j:82002**
Conference:
Collective Phenomena ★Third International Conference on Collective Phenomena. **82j:82002**
Physics in One Dimension ★Physics in one dimension. **82g:82003**
Sitges, Statistical Mechanics ★Systems far from equilibrium. **82g:82004**
Thermodynamics and Statistical Mechanics ★Statphys 14. **82d:82003**
Transport Theory ★New frontiers in transport theory. **82k:82001**
Edmonton, Alta. ★Statphys 14. **82d:82003**
Engineering ★Equations of state in engineering and research. **82f:82003**
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Fribourg ★Physics in one dimension. **82g:82003**
Fundamental problems in statistical mechanics ★Fundamental problems in statistical mechanics. V. **82g:82002**
Kiev ★Nonlinear and turbulent processes in physics. **82c:82002**
Mathematical problems in the quantum theory of irreversible processes ★Mathematical problems in the quantum theory of irreversible processes. **82j:82003**
Meeting:
American Chemical Society ★Equations of state in engineering and research. **82f:82003**
Methods of statistical mechanics ★Методы статистической механики. (Russian) [Methods of statistical mechanics] **82j:82004**
Miami Beach, Fla. ★Equations of state in engineering and research. **82f:82003**
Moscow ★Third International Conference on Collective Phenomena. **82j:82002**
Naples ★Mathematical problems in the quantum theory of irreversible processes. **82j:82003**
New developments in semiconductor physics ★New developments in semiconductor physics. **82f:82004**
New frontiers in transport theory ★New frontiers in transport theory. **82k:82001**
Nonlinear and turbulent processes in physics ★Nonlinear and turbulent processes in physics. **82c:82002**
Perspectives in statistical physics ★Perspectives in statistical physics. **82h:82001**
Phase transitions and nonequilibrium processes ★Фазовые превращения и неравновесные процессы. (Russian) [Phase transitions and nonequilibrium processes] **82m:82003**
Physical methods for investigating the solid state ★Физические методы исследования твердого тела. Вып. 3. (Russian) [Physical methods for investigating the solid state. No. 3] **82h:82002**
Physics ★Nonlinear and turbulent processes in physics. **82c:82002**
Physics in one dimension ★Physics in one dimension. **82g:82003**
Semiconductor physics ★New developments in semiconductor physics. **82f:82004**
Sitges ★Systems far from equilibrium. **82g:82004**
Statistical and coherent methods of investigation of physical systems ★Статистические и когерентные методы исследования физических систем. (Russian) [Statistical and coherent methods of investigation of physical systems] **82m:82004**
Statistical mechanics ★Fundamental problems in statistical mechanics. V. **82g:82002**
★Systems far from equilibrium. **82g:82004**
★Statphys 14. **82d:82003**
Statistical physics ★Perspectives in statistical physics. **82h:82001**
Statphys ★Statphys 14. **82d:82003**
Summer School:
Fundamental Problems in Statistical Mechanics ★Fundamental problems in statistical mechanics. V. **82g:82002**
New Developments in Semiconductor Physics ★New developments in semiconductor physics. **82f:82004**
Symposium:
Equations of State in Engineering and Research ★Equations of state in engineering and research. **82f:82003**
Mathematical Problems in the Quantum Theory of Irreversible Processes ★Mathematical problems in the quantum theory of irreversible processes. **82j:82003**
Systems far from equilibrium ★Systems far from equilibrium. **82g:82004**
Szeged ★New developments in semiconductor physics. **82f:82004**
Thermodynamics ★Statphys 14. **82d:82003**
Tucson, Ariz. ★New frontiers in transport theory. **82k:82001**
Workshop:
Nonlinear and Turbulent Processes in Physics ★Nonlinear and turbulent processes in physics. **82c:82002**

secondary classifications:

(Dobrušin, R. L.) *See* **Multicomponent random systems, (82a:60004a)** *and* **(82a:60004b)**
(Gani, J.) *See* **Essays in statistical science, (82i:62004)**
(Griffeath, David) *See* **Multicomponent random systems, (82a:60004b)**
(Hannan, E. J.) *See* **Essays in statistical science, (82i:62004)**
(Jouvet, Bernard) *See* **Field theory, quantization and statistical physics, (82b:81004)**
(Moran, P. A. P.) *See* **Essays in statistical science, (82i:62004)**
(Sinai, Ja. G.) *See* **Multicomponent random systems, (82a:60004a)** *and* **(82a:60004b)**
(Streit, Ludwig) *See* **Quantum fields—algebras, processes, (82b:81006)**
(Tirapegui, Enrique) *See* **Field theory, quantization and statistical physics, (82b:81004)**
Bielefeld ★Quantum fields—algebras, processes. **(82b:81006)**
Essays in statistical science ★Essays in statistical science. **(82i:62004)**
Field theory, quantization and statistical physics ★Field theory, quantization and statistical physics. **(82b:81004)**
Multicomponent random systems ★Многокомпонентные случайные системы. (Russian) [Multicomponent random systems] **(82a:60004a)**
★Multicomponent random systems. **(82a:60004b)**
Physics ★Quantum fields—algebras, processes. **(82b:81006)**
Quantization ★Field theory, quantization and statistical physics. **(82b:81004)**
Quantum fields—algebras, processes ★Quantum fields—algebras, processes. **(82b:81006)**
Random systems and dynamical systems ★Random systems and dynamical systems. **(82k:58039)**
Statistical mechanics ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**
★Stochastic processes and statistical mechanics in open systems. II. (Japanese) **(82f:60011)**
Statistical physics ★Field theory, quantization and statistical physics. **(82b:81004)**
Stochastic processes and statistical mechanics in open systems ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**
★Stochastic processes and statistical mechanics in open systems. II. (Japanese) **(82f:60011)**
Symposium:
Bielefeld, Encounters in Physics and Mathematics ★Quantum fields—algebras, processes. **(82b:81006)**
Random Systems and Dynamical Systems ★Random systems and dynamical systems. **(82k:58039)**
Stochastic Processes and Statistical Mechanics in Open Systems ★Stochastic processes and statistical mechanics in open systems. (Japanese) **(82f:60010)**
★Stochastic processes and statistical mechanics in open systems. II. (Japanese) **(82f:60011)**

82A05 Mathematical general statistical mechanics

Abdulla-Zadeh, F. H. (*with* Minlos, R. A.; Pogosjan, S. K.) Cluster estimates for Gibbs random fields and some applications. **82f:82005**
Abraham, D. B. Capillary waves and surface tension: an exactly solvable model. **82h:82003**
Aizenman, Michael Translation invariance and instability of phase coexistence in the two-dimensional Ising system. **82c:82003**
(*with* Martin, Philippe A.) Structure of Gibbs states of one-dimensional Coulomb systems. **82g:82005**
(*with* Simon, Barry) A comparison of plane rotor and Ising models. **82b:82001**
Aldrovandi, R. (*with* Monte Lima, I.) A matricial approach to cluster expansions. **82b:82002**
Alexanian, Moorad (*with* Grinstein, B.) Integral representation for non-Maxwell models and the approach to equilibrium. **82a:82001**
Andrews, George E. The hard-hexagon model and Rogers-Ramanujan type identities. **82m:82005**
Anšelevič, V. V. (*with* Vologodskiĭ, A. V.) Laplace operator and random walk on one-dimensional nonhomogeneous lattice. **82k:82002**
Arneodo, A. (*with* Coullet, P.; Tresser, C.) A renormalization group with periodic behaviour. **82e:82002**
Arsen'ev, A. A. An example of the Kubo-Martin-Schwinger state for a nonlinear classical Poisson system with an infinite-dimensional phase space. (Russian) **82k:82003**
d'Auria, A. Caramico (*with* De Cesare, L.; Esposito, U.) Spectral density method in classical statistical mechanics. **82k:82004**
Avron, Joseph E. (*with* Simon, Barry) A counterexample to the paramagnetic conjecture. **82b:82003**
Bariev, R. Z. A two-dimensional vertex model with two sublattices. **82i:82005**
Baxter, R. J. Exactly solved models. **82m:82006**
Bazarov, I. P. Does the Gibbs paradox exist? (Russian. English summary) **82b:82004**
Belov, V. V. *See* **Bruk-Levinson, È. T., 82a:82002**
Bennett, C. H. (*with* Büttiker, M.; Landauer, R.; Thomas, Harry) Kinematics of the forced and overdamped sine-Gordon soliton gas. **82c:82004**
Bishop, Alan R. Statistical mechanics of solitons. (*See* **82g:82003**)
Blum, Lesser *See* **Pérez-Hernández, W., 82d:82013**
Bogoljubov, N. N. Stochastic processes in dynamical systems. (Russian) **82b:82005**
Bolterauer, H. (*with* Opper, M.) Nonlinear excitations in the low temperature region of the classical Toda lattice. **82d:82004**
Bricmont, Jean (*with* Lebowitz, Joel L.; Pfister, Charles Edouard) Periodic Gibbs states of ferromagnetic spin systems. **82b:82006**
Bruk-Levinson, È. T. (*with* Belov, V. V.) A statistical scheme for describing equilibrium properties of a material of arbitrary density. (Russian. English summary) **82a:82002**
Brydges, David (*with* Federbush, Paul) A new form of the Mayer expansion in classical statistical mechanics. **82c:82005**
Buckholtz, Helen *See* **Ermak, Donald L., 82c:82010**
Bunimovič, L. A. (*with* Sinaĭ, Ja. G.) Statistical properties of Lorentz gas with periodic configuration of scatterers. **82m:82007**
Büttiker, M. Spatial fluctuations of the sine-Gordon chain. **82c:82006**
See also **Bennett, C. H.; et al., 82c:82004**
Büttner, H. *See* **Mertens, F. G., 82j:82013**
Capel, H. W. *See* **Quispel, G. R. W., 82j:82016**
Cardoso Dias, Penha Maria (*with* Shimony, Abner) A critique of Jaynes' maximum entropy principle. **82f:82006**
Carleson, Lennart Some analytic problems related to statistical mechanics. **82j:82005**
Cassandro, M. (*with* Olivieri, E.) Renormalization group and analyticity in one dimension: a proof of Dobrushin's theorem. **82k:82005**

Chen, Masao R. Y. An alternative solution of the Bogoliubov's equation for the two-particle distribution function in the kinetic theory of gases. **82b:82007**

Chen, Mu Fa *See* **Ding, Wan Ding, 82m:82008**

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Choi, Sang Don *See* **Hara, Hiroaki, 82c:82011**

Choquard, Ph. (*with* Favre, P.; Gruber, Ch.) On the equation of state of classical one-component systems with long-range forces. **82c:82007**

(*with* Kunz, Hervé; Martin, Philippe A.; Navet, M.) One-dimensional Coulomb systems. (*See* **82g:82003**)

Chudnovsky, David V. (*with* Chudnovsky, Gregory V.) The relationship between nonabelian matrix Toda lattices and Ising-type models of statistical mechanics. **82j:82006**

Chudnovsky, Gregory V. *See* **Chudnovsky, David V., 82j:82006**

Chui, S. T. Statistical mechanics of two-dimensional domain walls. **82f:82007**

Collins, Michael A. A quasicontinuum approximation for solitons in an atomic chain. **82a:82003**

Coullet, P. *See* **Arneodo, A.; et al., 82e:82002**

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Daniel, M. *See* **Lakshmanan, M., 82j:82011**

Dašjan, Ju. R. The local limit theorem for a class of marked point fields and the problem of equivalence of ensembles in quantum statistical mechanics. **82j:82007**

De Cesare, L. *See* **d'Auria, A. Caramico; et al., 82k:82004**

Dekeyser, Raf (*with* Stella, Attilio) Differential renormalization of van der Waals spin models. **82a:82004**

See also **Stella, Attilio, 82j:82018**

Dekker, H. On the most probable transition path of a general diffusion process. **82b:82008**

Delyon, François The distribution of clusters for the Ising model. **82c:82009**

Ding, Wan Ding (*with* Chen, Mu Fa) Quasireversible measures of nearest neighbor speed functions. (Chinese. English summary) **82m:82008**

Driessler, Wulf On the spectrum of the Rayleigh piston. **82d:82005**

van Enter, A. C. D. A note on the stability of phase diagrams in lattice systems. **82i:82006**

Ermak, Donald L. (*with* Buckholtz, Helen) Erratum: "Numerical integration of the Langevin equation: Monte Carlo simulation" [J. Comput. Phys. **35** (1980), no. 2, 169–182; MR 81d:82003]. **82c:82010**

Esposito, U. *See* **d'Auria, A. Caramico; et al., 82k:82004**

Falk, H. Discrete-time Glauber model as a generalized Ehrenfest urn model. **82b:82009**

Exact approach to equilibrium for the Glauber model of a one-dimensional Ising system with random $\pm J$ bonds. **82b:82010**

Faris, William G. The Rayleigh-Schrödinger expansion of the Gibbs state of a classical Heisenberg ferromagnet. **82d:82006**

Favre, P. *See* **Choquard, Ph.; et al., 82c:82007**

Federbush, Paul *See* **Brydges, David, 82c:82005**

Fogedby, Hans C. Solitons and magnons in the classical Heisenberg chain. **82a:82005**

Classical and quantum aspects of the continuous Heisenberg chain at $T=0$. **82d:82007**

Fröhlich, Jürg Statistical mechanics of N-vector models and gauge theories. (*See* **82i:81004a**)

On the mathematics of phase transitions and critical phenomena. **82k:82006**

(*with* Park, Yong Moon) Correlation inequalities and the thermodynamic limit for classical and quantum continuous systems. II. Bose-Einstein and Fermi-Dirac statistics. **82g:82006**

(*with* Pfister, Charles Edouard) On the absence of spontaneous symmetry breaking and of crystalline ordering in two-dimensional systems. **82m:82009**

Fronteau, J. Brief introduction to Lie-admissible formulations in statistical mechanics. **82h:82004**

Galgani, Luigi Statistical mechanics of weakly coupled oscillators presenting stochasticity thresholds. **82j:82008**

Gallavotti, Giovanni The stability problem in φ^4 scalar field theories. **82d:82008**

Georgii, Hans-Otto Percolation for low energy clusters and discrete symmetry breaking in classical spin systems. **82m:82010**

Goldhirsch, Isaac (*with* Procaccia, Itamar) The number of propagating modes in hydrodynamic systems. **82d:82009**

Goodrich, K. (*with* Gustafson, Karl E.; Misra, Baidyanath) On converse to Koopman's lemma. **82i:82007**

Göpfert, Markus (*with* Mack, Gerhard) Iterated Mayer expansion for classical gases at low temperatures. **82k:82007**

Górecki, J. (*with* Pusz, W.) Passive states for finite classical systems. **82b:82011**

Graben, H. W. *See* **Ray, John R., 82j:82017**

Graham, Robert Forward Hopf bifurcation with multiplicative Gaussian white noise: exact Fokker-Planck solution. **82b:82012**

Grigolini, Paolo Brownian motion of harmonic systems with fluctuating parameters: a discussion in terms of "virtual" heat baths. **82i:82008**

Grinstein, B. *See* **Alexanian, Moorad, 82a:82001**

Gruber, Ch. (*with* Martin, Philippe A.) Translation invariance in statistical mechanics of classical continuous systems. **82d:82010**

See also **Choquard, Ph.; et al., 82c:82007**

Guillaume, Jean-Louis *See* **Valton, Michel; et al., 82a:82008**

Gujrati, P. D. Correct correspondence between self-avoiding random walks and a magnetic system as $n \to 0$ on a lattice. **82j:82009**

Gustafson, Karl E. *See* **Goodrich, K.; et al., 82i:82007**

Haag, G. (*with* Hanggi, Peter) Continued fraction solutions of discrete master equations not obeying detailed balance. II. **82b:82013**

Hanggi, Peter *See* **Haag, G., 82b:82013**

Hara, Hiroaki (*with* Choi, Sang Don) A theory of the coupled random walk process. **82c:82011**

Hermann, Robert *See* **Hurt, Norman E., 82i:82009**

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Huo, Yu Ping The longtime asymptotic behavior of the correlation functions. The influences of the waves on the relaxation processes. (Chinese. English summary) **82b:82014**

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Virčenko, Ju. P. (*with* Laskin, N. V.) Divergences in the construction of kinetic equations. (Russian. English summary) **82b:82056**
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Willemsen, Jorge F. Functional methods in random classical field theory. **82g:82036**
Wilson, Clive Alistair *See* **Moore, M. A., 82h:82052**
Wu, F. Y. Dilute Potts model, duality and site-bound percolation. **82h:82057**
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(Bernasconi, Jakob) *See* **Physics in one dimension, (82g:82003)**
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Falk, H. Exact approach to equilibrium for the Glauber model of a one-dimensional Ising system with random $\pm J$ bonds. **(82b:82010)**
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Stochastic spectral equations. **(82e:60101)**
Gol'dšeid, I. Ja. Structure of the spectrum of the Schrödinger random difference operator. (Russian) **(82k:60138)**
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Kesten, Harry The critical probability of bond percolation on the square lattice equals $\frac{1}{2}$. **(82c:60179)**
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Kljackin, V. I. ★Стохастические уравнения и волны в случайно-неоднородных средах. (Russian) [Stochastic equations and waves in randomly inhomogeneous media] **(82b:60066)**
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McKane, A. J. (*with* Stone, Michael) Localization as an alternative to Goldstone's theorem. **(82c:82084)**
Molčanov, S. A. The local structure of the spectrum of the one-dimensional Schrödinger operator. **(82d:35076)**
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Ogilvie, M. C. *See* **Houghton, A., (82b:82061)**
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Ringwood, G. A. Random walks and quantum currents in networks. **(82d:82075)**
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(*with* Grimmett, Geoffrey) Central limit theorems for percolation models. **(82k:60209)**

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Smythe, R. T. Percolation models in two and three dimensions. **(82i:60183)**

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Bartolomäus, G. (*with* Wilhelm, J.) Existence and uniqueness of the solution of the nonstationary Boltzmann equation for the electrons in a collision dominated plasma by means of operator semigroups. (German summary) **82j:82053**

Berezin, Ju. A. (*with* Višvkov, V. A.) ★Метод частиц в динамике разреженной плазмы. (Russian) [The particle method in the dynamics of a rarified plasma] **82i:82048**

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Cohen, Bruce I. (*with* Brengle, Thomas A.; Conley, Davis B.; Freis, Robert P.) An orbit averaged particle code. **82c:82079**

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Current responses of first and second order in a collisionless plasma. II. Three-wave interaction. **82m:82030b**

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Novak, Miroslav M. Interaction of photons with electrons in dielectric media. **82k:82033**

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Pastore, G. (*with* Senatore, G.; Tosi, M. P.) Short-range correlations in multicomponent plasmas. **82k:82032**

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Pocobelli, G. Damping of an electron plasma wave with detrapping of the electrons. **82m:82031**

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Rechester, A. B. (*with* Rosenbluth, M. N.; White, Roscoe Beryl) Fourier-space paths applied to the calculation of diffusion for the Chirikov-Taylor model. **82d:82063**

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Schulz, H. Pairing transition of a one-dimensional classical plasma. **82m:82032**

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Srinivasan, S. K. (*with* Udayabaskaran, S.) Stochastic perturbation of a stable deterministic plasma system. **82c:82082**

Strampp, W. Über die Vlasov-Gleichung für ein Elektronengas in einem äußeren Magnetfeld. **82j:82055**

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Tessarotto, Massimo Collisional transport for general magnetized plasmas in the weakly collisional regime. **82k:82033**

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Volosov, V. I. (*with* Pekker, M. S.) On numerical methods for solving the two-dimensional problem for Fokker-Planck equations. (Russian) **82d:82064**

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Bandle, Catherine (*with* Marcus, Moshe) Sur une classe de problèmes apparaissant en physique des plasmas. (English summary) [A class of problems appearing in plasma physics] **(82m:35062)**

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Dikman, S. M. (*with* Pitaevskiĭ, L. P.) New type of convection in a magnetoactive plasma. **(82b:76073)**

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Kerśner, Robert Degenerate parabolic equations with general nonlinearities. **(82h:35056)**

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Krichever, I. M. On the rational solutions of the Zaharov-Šabat equations and completely integrable systems of N particles on the line. (Russian. English summary) **(82i:35155)**

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Ždanov, V. M. (*with* Jušmanov, P. N.) Heat diffusion and transfer in a multicomponent completely ionized plasma. (Russian) **(82d:76102)**
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Adu-Gyamfi, D. On the average moments of a polar molecule in a nonuniform electric field. **82i:82050**
Aleksandrov, I. V. The statistical dynamics of a system consisting of a classical and a quantum subsystem. **82k:82034**
Andrews, Frank C. (*with* Ellerby, H. Michael) A simple equilibrium statistical mechanical theory of dense hard sphere fluid mixtures. **82j:82056**
Bedeaux, D. Hydrodynamic fluctuation theory for a one-component fluid in equilibrium; the nonlinear case. (*See* **82g:82002**)
Čalyĭ, A. V. *See* **Sysoev, V. M., 82h:82059**
Cohen, E. G. D. *See* **de Schepper, I. M.; et al., 82h:82035**
Cummings, P. T. (*with* Wright, C. C.) Solution of the Ornstein-Zernike equation for a soft-core Yukawa fluid. III. A restricted model for electrolytes and fused salts. **82f:82052b**
See also **Wright, C. C., 82f:82052a**
Dale, William D. T. *See* **Rossky, Peter J., 82d:82068**
Dias, João-Paulo Problèmes nonlinéaires intervenant dans l'étude des cristaux liquides nématiques. [Nonlinear problems occurring in the study of nematic liquid crystals] (*See* **82i:35002**)
Donoghue, Edward (*with* Gibbs, Julian H.) Condensation theory for finite, closed systems. **82e:82014**
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Ellerby, H. Michael *See* **Andrews, Frank C., 82j:82056**
Ernst, M. H. *See* **de Schepper, I. M.; et al., 82h:82035**
Fisher, Michael E. *See* **Jones, Gerald L.; et al., 82c:82083** *and* **Fishman, Shmuel, 82i:82051**
Fishman, Shmuel (*with* Fisher, Michael E.) Critical point scaling in the Percus-Yevick equation. **82i:82051**
Fourier space analysis of the Yvon-Born-Green equation in the critical region. **82m:82033**
See also **Jones, Gerald L.; et al., 82c:82083**
Freasier, B. C. (*with* Isbister, D. J.) A remark on the Percus-Yevick approximation in higher dimensions. Hard core systems. **82d:82066**
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Gibbs, Julian H. *See* **Donoghue, Edward, 82e:82014**
Henderson, Douglas Practical calculations of the equation of state of fluids and fluid mixtures using perturbation theory and related theories. (*See* **82f:82003**)
Hirsbrunner, Béat (*with* Tschudi, Hans Rudolf) On the kinetics of condensation through homogeneous nucleation. **82h:82034**
Høye, J. S. (*with* Stell, G.) Classical description of the polarizability and dielectric constant of monatomic fluids. **82j:82057**
(*with* Stell, G.) Quantum statistical mechanical model for polarizable fluids. **82k:82035**
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See also **Freasier, B. C., 82d:82066**
Jones, Gerald L. (*with* Kozak, John J.; Lee, Eok Kyun; Fishman, Shmuel; Fisher, Michael E.) Critical point correlations of the Yvon-Born-Green equation. **82c:82083**
Jones, R. B. Hydrodynamic fluctuation forces. **82d:82067**
Kawasaki, Kyozi (*with* Onuki, Akira; Ohta, Takao) Some topics in nonequilibrium critical phenomena. (*See* **82g:82004**)
Kozak, John J. *See* **Jones, Gerald L.; et al., 82c:82083**
Lee, Eok Kyun *See* **Jones, Gerald L.; et al., 82c:82083**
Mareschal, Michel (*with* Duerinckx, G.) Corrélations de non-équilibre dans un modèle soluble. **82k:82037**
Martynov, G. A. Exact equations and the theory of liquids. I. Analysis, transformation and method of solving exact equations. **82i:82052**
Ohta, Takao *See* **Kawasaki, Kyozi; et al., (*See* 82g:82004)**
Onuki, Akira *See* **Kawasaki, Kyozi; et al., (*See* 82g:82004)**
Percus, J. K. Shielded distribution approximation for a wall-bounded classical fluid. **82f:82050**
Rossky, Peter J. (*with* Dale, William D. T.) Generalized recursive solutions to Ornstein-Zernike integral equations. **82d:82068**
Ryžov, V. N. (*with* Tareeva, E. E.) An equation for the radial distribution function. (Russian) **82j:82058**
de Schepper, I. M. (*with* Ernst, M. H.; Cohen, E. G. D.) The incoherent scattering function and related correlation functions in hard sphere fluids at short times. **82h:82035**
Siniveè, V. NMR of spin $\frac{1}{2}$ and the group GL(4, **R**). (Russian. Estonian and English summaries) **82i:82053a**
NMR of spin $\frac{1}{2}$ and the group GL(4, **R**). II. (Russian. Estonian and English summaries) **82i:82053b**
Stell, G. *See* **Høye, J. S., 82j:82057** *and* **82k:82035**
Sysoev, V. M. (*with* Čalyĭ, A. V.) Integral equations for a radial distribution function with effective allowance for long-range effects. (Russian. English summary) **82h:82059**
Tareeva, E. E. *See* **Ryžov, V. N., 82j:82058**
Totsuji, Hiroo Distribution of charged particles near a charged hard wall in a uniform background. **82k:82038**
Tschudi, Hans Rudolf *See* **Hirsbrunner, Béat, 82h:82034**
Wertheim, M. S. Factorization of the direct correlation function. II. Relation to walls. **82f:82051**
Wright, C. C. (*with* Cummings, P. T.) Solution of the Ornstein-Zernike equation for a soft-core Yukawa fluid. II. Numerical results. **82f:82052a**
See also **Cummings, P. T., 82f:82052b**

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Allen, J. W. (*with* Diestler, D. J.) Universal formulas for classical transport coefficients: the zero-frequency component. **(82c:82105)**
Andrews, D. L. (*with* Ghoul, W. A.) Eighth rank isotropic tensors and rotational averages. **(82f:81029)**
Aoki, Toshizumi (*with* Homma, Shigeo; Nakano, Huzio) Collective modes in the quantum lattice or three-dimensional *XY* model. I. **(82k:82049)**
Costanza, Vicente (*with* Seinfeld, John H.) A differentiable trajectory approximation to turbulent diffusion. **(82h:76035)**
Diestler, D. J. *See* **Allen, J. W., (82c:82105)**
Ghoul, W. A. *See* **Andrews, D. L., (82f:81029)**
Homma, Shigeo *See* **Aoki, Toshizumi; et al., (82k:82049)**
Mayer, J. E. Equilibrium density matrix for fluids. **(82j:82043)**
Nakano, Huzio *See* **Aoki, Toshizumi; et al., (82k:82049)**
Naudts, J. Gaussian states on the algebra of the infinite classical system. **(82g:82010)**
Nelson, David R. *See* **Toner, John, (82c:82019)**
Paul, R. (*with* Wagstaff, K.) Application of Padé approximants to the velocity-autocorrelation function. **(82h:82053)**
Seinfeld, John H. *See* **Costanza, Vicente, (82h:76035)**
Singh, Y. (*with* Sinha, S. K.) Semiclassical statistical mechanics of fluids. **(82m:82001)**
Sinha, S. K. *See* **Singh, Y., (82m:82001)**
Straughan, Brian Stability of uniform equilibrium states of a nematic liquid crystal. (French summary) **(82d:76052)**
Toner, John (*with* Nelson, David R.) Smectic, cholesteric, and Rayleigh-Bénard order in two dimensions. **(82c:82019)**
van Velsen, J. F. C. The average Riemann curvature of conservative systems in classical mechanics. **(82g:70032)**
Wagstaff, K. *See* **Paul, R., (82h:82053)**
Yoshimura, Tetz Existence and local uniqueness of solutions of the Percus-Yevick equation. **(82c:82020)**

82A51 Polymers

Barrett, A. J. (*with* Domb, C.) Statistical properties of a polymer chain in the two-parameter approximation. **82i:82054**
Domb, C. *See* **Barrett, A. J., 82i:82054**
Gordon, Manfred *See* **Irvine, P., 82m:82034**
Ingarden, Roman Stanisław *See* **Jaworski, W., 82k:82039**
Irvine, P. (*with* Gordon, Manfred) Truncation theorems for spinodals and critical points of mean-field models for polydisperse polymer solutions. **82m:82034**
Jaworski, W. (*with* Ingarden, Roman Stanisław) An information-thermodynamical approach to kinetics of polymerization. **82k:82039**
Kosmas, Marios K. On the mean radius of gyration of a polymer chain. **82j:82059**
de Queiroz, S. L. A. Polymer statistics on a Cayley tree. **82i:82055**
Whittle, P. A direct derivation of the equilibrium distribution for a polymerisation process. (Russian summary) **82h:82036**

secondary classifications:

Ball, Robin Christopher (*with* Mehta, M. L.) Sequence of invariants for knots and links. (French summary) **(82h:57005)**
(Bernasconi, Jakob) *See* **Physics in one dimension, (82g:82003)**
Freed, Karl F. Polymers as self-avoiding walks. **(82j:60123)**
Gujrati, P. D. Correct correspondence between self-avoiding random walks and a magnetic system as $n \to 0$ on a lattice. **(82j:82009)**
Mehta, M. L. *See* **Ball, Robin Christopher, (82h:57005)**
Pisarski, Robert D. (*with* Stein, D. L.) Critical behavior of linear Φ^4 models with $G \times G'$ symmetry. **(82c:82034)**
(Schneider, Toni) *See* **Physics in one dimension, (82g:82003)**
Stein, D. L. *See* **Pisarski, Robert D., (82c:82034)**

Conference:
Physics in One Dimension ★Physics in one dimension. **(82g:82003)**
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82A55 Solids

Belokolos, E. D. The Peierls-Fröhlich problem and potentials with a finite number of gaps. II. (Russian. English summary) **82m:82035**
Benettin, Giancarlo (*with* Lo Vecchio, Guido; Tenenbaum, Alexander) Stochastic transition in two-dimensional Lennard-Jones systems. **82b:82060**
Bogoljubov, N. N. (*with* Bogoljubov, N. N., Jr.) Kinetic equation for a dynamic system interacting with a phonon field. (Russian. English summary) **82j:82060**
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Halperin, B. I. *See* **Ostlund, S., 82d:82069**
Houghton, A. (*with* Ogilvie, M. C.) A field theory of dislocation mediated melting in two dimensions. **82b:82061**
Ito, Masakazu Anomalous temperature-dependence of magnetization in layered system of *X-Y* model. **82m:82036**
Kreth, Horst (*with* Sprekels, Jürgen) On the uniqueness of conduction in relaxation-case semiconductors. (German summary) **82k:82040**
Lo Vecchio, Guido *See* **Benettin, Giancarlo; et al., 82b:82060**
McKane, A. J. (*with* Stone, Michael) Localization as an alternative to Goldstone's theorem. **82c:82084**
Ogilvie, M. C. *See* **Houghton, A., 82b:82061**
Ostlund, S. (*with* Halperin, B. I.) Dislocation-mediated melting of anisotropic layers. **82d:82069**
Peyrard, M. Dynamic polarizability of the double quadratic and multiquadratic chains with anharmonic coupling. **82m:82037**
Sprekels, Jürgen *See* **Kreth, Horst, 82k:82040**
Stone, Michael *See* **McKane, A. J., 82c:82084**
Talbot, D. R. S. (*with* Willis, J. R.) The effective sink strength of a random array of voids in irradiated material. **82d:82070**
Tenenbaum, Alexander *See* **Benettin, Giancarlo; et al., 82b:82060**
Willis, J. R. *See* **Talbot, D. R. S., 82d:82070**

secondary classifications:

Askarov, B. (*with* Oksengendler, B. L.; Junusov, M. S.) The theory of Brillouin-Wigner perturbations in a two-level problem and its application to the problem of translational instability. (Russian) **(82h:82040)**
Chui, S. T. Statistical mechanics of two-dimensional domain walls. **(82f:82007)**
Cummings, P. T. (*with* Wright, C. C.) Solution of the Ornstein-Zernike equation for a soft-core Yukawa fluid. III. A restricted model for electrolytes and fused salts. **(82f:82052b)**
van den Doel, R. *See* **de Leeuw, F. H.; et al., (82f:82054)**
Enz, U. *See* **de Leeuw, F. H.; et al., (82f:82054)**
Jackiw, R. (*with* Schrieffer, J. R.) Solitons with fermion number $\frac{1}{2}$ in condensed matter and relativistic field theories. **(82h:81109)**
Junusov, M. S. *See* **Askarov, B.; et al., (82h:82040)**
Kagermann, H. Stochastic equations arising from test particle problems. II. Application to the harmonic lattice and the electron plasma. **(82j:82042b)**
de Leeuw, F. H. (*with* van den Doel, R.; Enz, U.) Dynamic properties of magnetic domain walls and magnetic bubbles. **(82f:82054)**
Oksengendler, B. L. *See* **Askarov, B.; et al., (82h:82040)**
Schrieffer, J. R. *See* **Jackiw, R., (82h:81109)**
Toda, Morikazu ★Nonlinear lattice dynamics. (Japanese) **(82k:58052a)**
★Theory of nonlinear lattices. **(82k:58052b)**
Wright, C. C. *See* **Cummings, P. T., (82f:82052b)**
Zvjagin, I. P. Quantum-statistical theory of transport by localized carriers in disordered semiconductors. **(82d:82061)**

82A57 Disordered materials, including liquid crystals and spin glasses

Binder, Kurt *See* **Morgenstern, I., 82h:82038**
Bray, A. J. (*with* Moore, M. A.) Metastable states in the solvable spin glass model. **82i:82056**
Chadi, D. J. *See* **Stone, A. Douglas; et al., 82m:82040**
Chen, Y. C. (*with* Wu, Shi Yu; Sinai, J. J.) Excitation spectra of disordered systems. I. General theory. **82j:82061**
Corbelli, G. (*with* Morandi, G.) Rigorous results concerning a generalized mean-field theory of dilute disordered Ising magnets. **82m:82038**
Czycholl, G. (*with* Kramer, B.) Numerical investigation of the conductivity and electron localization of a one-dimensional disordered system. **82i:82057**
Evans, Myron *See* **Ferrario, Mauro, 82i:82058**
Ferrario, Mauro (*with* Evans, Myron) A theory of the dielectric loss in the aligned nematic mesophase. **82i:82058**
Frankel, N. E. *See* **Inawashiro, S.; et al., 82m:82039a**
Heilmann, Ole J. (*with* Lieb, Elliott H.) Lattice models for liquid crystals. **82k:82041**
Inawashiro, S. (*with* Frankel, N. E.; Thompson, Colin J.) Disordered magnetic lattice gas: Gaussian probability distributions and the limit of infinitely-long-ranged interactions. **82m:82039a**
Izuyama, Takeo Lattice gauge theory for the classical *XY* model of spin glasses. **82h:82037**
Joannopoulos, J. D. *See* **Stone, A. Douglas; et al., 82m:82040**
Kleinert, H. (*with* Maki, Kazumi) Lattice textures in cholesteric liquid crystals. **82k:82042**
Kramer, B. *See* **Czycholl, G., 82i:82057**
Kree, Reiner (*with* Schmid, Albert) Stochastic properties of the resistivity in a one-dimensional disordered conductor. **82i:82059**
Lieb, Elliott H. *See* **Heilmann, Ole J., 82k:82041**
Maki, Kazumi *See* **Kleinert, H., 82k:82042**
Moore, M. A. *See* **Bray, A. J., 82i:82056**
Morandi, G. *See* **Corbelli, G., 82m:82038**
Morgenstern, I. (*with* Binder, Kurt) Magnetic correlations in three-dimensional Ising spin glasses. **82h:82038**
Numerically exact solvable random-bond Ising model. **82k:82043**
Schmid, Albert *See* **Kree, Reiner, 82i:82059**
Schuster, H. G. Vanishing of the Edwards-Anderson order parameter in *XY* and Heisenberg spin glasses below four dimensions. **82j:82062**
Sinai, J. J. *See* **Chen, Y. C.; et al., 82j:82061**
Stone, A. Douglas (*with* Joannopoulos, J. D.; Chadi, D. J.) Scaling studies of the resistance of the one-dimensional Anderson model with general disorder. **82m:82040**
Takano, Fumihiko Phase transition of random Ising model. Comparison of glass like phase and random ordered phase. **82i:82060**
Thompson, Colin J. *See* **Inawashiro, S.; et al., 82m:82039a**
Toulouse, Gérard Symmetry and topology concepts for spin glasses and other glasses. **82j:82063**
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Wu, Shi Yu *See* **Chen, Y. C.; et al., 82j:82061**

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Braun, E. A model of Brownian dynamics for colloidal suspensions. **(82g:82026)**
Dias, João-Paulo (*with* Haraux, Alain) Smoothing effect and asymptotic behaviour for the solutions of a nonlinear time dependent system. **(82h:35049)**
Goulart Rosa, S., Jr. The thermodynamic limit of the quenched free energy of magnetic systems with random interactions. **(82m:82025)**
Haraux, Alain *See* **Dias, João-Paulo, (82h:35049)**
Horiguchi, Tsuyoshi On the Bethe approximation for the random bond Ising model. **(82g:82033)**
Lin, Lei (*with* Wang, Xin Yi) Landau-de Gennes model of first-order phase transitions —Gaussian approximation. (Chinese. English summary) **(82g:82021)**
Martinelli, G. (*with* Parisi, Giorgio) A systematical improvement of the Migdal recursion formula. **(82h:82017)**
Parisi, Giorgio *See* **Martinelli, G., (82h:82017)**
Pokrovskiĭ, V. L. Splitting of commensurate-incommensurate phase transition. (French summary) **(82j:82029)**
Sanchez-Dehesa, J. Direct and inverse eigenvalue problems of Jacobi matrices in physics and biology. **(82j:15013)**
Shukla, Prabodh (*with* Singh, Surjit) Classical and quantum spherical models of spin-glasses: a complete treatment of statistics and dynamics. **(82f:82045)**
Singh, Surjit *See* **Shukla, Prabodh, (82f:82045)**
Wang, Xin Yi *See* **Lin, Lei, (82g:82021)**

82A60 Crystals {For crystallographic group theory, see 20H15.}

Adhamov, A. A. (*with* Gumovskiĭ, V. A.; Lebedev, V. I.) On the stability of a strongly anharmonic crystal with vacancies. (Russian) **82h:82039**
Aliev, M. N. The theory of magnetic resonance on nuclei of paramagnetic impurities in magnetically concentrated diamagnetic crystals. (Russian) **82i:82061**
de Almeida, M. J. M. *See* **Alte da Veiga, L. M.; et al., 82d:82071**
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de Andrade, L. R. *See* **Alte da Veiga, L. M.; et al., 82d:82071**
Askarov, B. (*with* Oksengendler, B. L.; Junusov, M. S.) The theory of Brillouin-Wigner perturbations in a two-level problem and its application to the problem of translational instability. (Russian) **82h:82040**
Bazarov, I. P. (*with* Nikolaev, P. N.) Integral equations in crystal theory. (Russian) **82h:82041**
Belov, N. V. *See* **Rau, V. G.; et al., 82g:82049** *and* **82j:82064**
Beurskens, Paul T. A statistical interpretation of rotation and translation functions in reciprocal space. **82k:82045**
Birman, Joseph L. Representation theory, selection rules, and physical processes in crystals. **82m:82041**
Catti, Michele A generalized Born-Mayer parametrization of the lattice energy in orthorhombic ionic crystals. **82c:82085**
Cavinato, Antonio (*with* Magnano, Giorgio) The principle of equivalence between lattice segments with the metric-interference effects. (Italian. English summary) **82c:82086**
Combe, Ph. (*with* Rodriguez, R.; Sirugue, M.; Sirugue-Collin, M.) A uniqueness theorem for central extensions of discrete products of cyclic groups. **82d:82072**
Costa, M. M. R. R. *See* **Alte da Veiga, L. M.; et al., 82d:82071**
Cracknell, A. P. (*with* Davies, B. L.) The compilation of tables of reductions of Kronecker products and symmetrised powers of space-group representations. (*See* **82h:81004**)
Davies, B. L. *See* **Cracknell, A. P., (*See* 82h:81004)**
Dirl, R. Selection rules for type II Shubnikov space groups. **82e:82015**
Selection rules for $Pn3'n$. **82e:82016**
van den Doel, R. *See* **de Leeuw, F. H.; et al., 82f:82054**
Enz, U. *See* **de Leeuw, F. H.; et al., 82f:82054**
Èvarestov, R. A. *See* **Smirnov, V. P., 82b:82066**
Gardner, Clifford S. (*with* Radin, Charles) The infinite-volume ground state of the Lennard-Jones potential. **82b:82062**
Giacovazzo, Carmelo (*with* Vicković, Ivan) The theory of representations: its application to the estimation of the two-phase variants and semi-invariants. **82f:82053**
Gumovskiĭ, V. A. *See* **Adhamov, A. A.; et al., 82h:82039**
Guymont, Michel Symmetry analysis of structural transitions between phases not

necessarily group-subgroup related. Domain structures. **82h:82042**

Iljuhin, V. V. *See* **Rau, V. G.; et al., 82g:82049** *and* **82j:82064**

Janner, A. Z-module crystallography. (*See* **82h:81004**)

(*with* Janssen, T.) Symmetry of incommensurate crystal phases. I. Commensurate basic structures. **82i:82062a**

(*with* Janssen, T.) Symmetry of incommensurate crystal phases. II. Incommensurate basic structure. **82i:82062b**

(*with* Janssen, T.) Symmetry of incommensurate crystal phases in the superspace group approach. **82g:82047**

Janssen, T. *See* **Janner, A., 82g:82047** *and* **82i:82062**

Jumsov, M. S. *See* **Askarov, B.; et al., 82h:82040**

Kapitonov, V. S. (*with* Popov, V. N.) Functional approach to the theory of crystals. (Russian) **82g:82048**

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Kleih, W. *See* **Stumpf, Harald, 82a:82040**

Kopcik, V. A. The symmetry of imperfect crystals. **82k:82046**

Kunert, H. (*with* Suffczyński, M.) Vector-coupling coefficients for space groups based on simple cubic lattices. (French summary) **82b:82063**

Kurki Suonio, Kaarle *See* **Kara, Mikko, 82e:82017**

Kuznecov, V. G. *See* **Pavinskiĭ, P. P., 82c:82087**

Lebedev, V. I. *See* **Adhamov, A. A.; et al., 82h:82039**

de Leeuw, F. H. (*with* van den Doel, R.; Enz, U.) Dynamic properties of magnetic domain walls and magnetic bubbles. **82f:82054**

de Leeuw, S. W. (*with* Perram, J. W.; Smith, Edgar Roderick) Simulation of electrostatic systems in periodic boundary conditions. I. Lattice sums and dielectric constants. **82f:82055a**

(*with* Perram, J. W.; Smith, Edgar Roderick) Simulation of electrostatic systems in periodic boundary conditions. II. Equivalence of boundary conditions. **82f:82055b**

Leonjuk, N. I. (*with* Mal'ceva, L. I.) Use of the Wulff-Delaunay method to assess the habits of crystals. **82d:82073**

Magnano, Giorgio *See* **Cavinato, Antonio, 82c:82086**

Mal'ceva, L. I. *See* **Leonjuk, N. I., 82d:82073**

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Oksengendler, B. L. *See* **Askarov, B.; et al., 82h:82040**

Pavinskiĭ, P. P. (*with* Kuznecov, V. G.) Calculation of higher harmonics for the Coulomb potential of a crystal. I. Spherical functions of the symmetry O_h. (Russian. English summary) **82c:82087**

Perram, J. W. *See* **de Leeuw, S. W.; et al., 82f:82055**

Popov, V. N. *See* **Kapitonov, V. S., 82g:82048**

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Rau, V. G. (*with* Sedov, B. B.; Iljuhin, V. V.; Belov, N. V.) On an incomplete Patterson function. (Russian) **82j:82064**

(*with* Iljuhin, V. V.; Belov, N. V.) Homometric solutions of the incomplete Patterson function. (Russian) **82g:82049**

Rodriguez, R. *See* **Combe, Ph.; et al., 82d:82072**

Rościszewski, K. Topological classification of symmetry defects and solitons in thin layers of liquid crystals. **82f:82056**

Rosenstock, Herbert B. (*with* Marquardt, Charles L.) Cluster formation in two-dimensional random walks: application to photolysis of silver halides. **82c:82088**

Schupfner, J. On the theory of thermally weighted electron-phonon transition probabilities. **82b:82065a**

Errata: "On the theory of thermally weighted electron-phonon transition probabilities". **82b:82065b**

Schwarzenberger, Rolf L. E. ★*n*-dimensional crystallography. **82e:82018**

Sedov, B. B. *See* **Rau, V. G.; et al., 82j:82064**

Senechal, Marjorie The genesis of growth twins. **82d:82074**

Sirugue, M. *See* **Combe, Ph.; et al., 82d:82072**

Sirugue-Collin, M. *See* **Combe, Ph.; et al., 82d:82072**

Sivardière, J. Cyclic and dihedral point groups as subgroups of the limiting groups. (German summary) **82k:82047**

Smirnov, V. P. (*with* Évarestov, R. A.) Construction of special points of the Brillouin zone by the large unit cell method. (Russian. English summary) **82b:82066**

Smith, Edgar Roderick Electrostatic energy in ionic crystals. **82g:82050**

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See also **Kinzel, Wolfgang; et al., (82j:82028)**
Wu, Tai Tsun *See* **McCoy, Barry M., (82i:81106)**
Zamolodčikov, Aleksander B. (*with* Fateev, V. A.) A model factorized S-matrix and an integrable spin-1 Heisenberg chain. **(82g:81089)**
Conference:
Physics in One Dimension ★Physics in one dimension. **(82g:82003)**
Fribourg ★Physics in one dimension. **(82g:82003)**
Physics in one dimension ★Physics in one dimension. **(82g:82003)**

82A70 Transport processes [See also 85A25.]

Adelman, S. A. Some formal properties of the MTGLE representation of generalized Brownian motion theory. **82f:82067**
Agoškov, V. I. *See* **Marčuk, G. I., 82i:82077**
Albano, A. M. On the symmetry of friction coefficients for particles moving in fluids with spin. **82c:82104**
Alder, B. J. (*with* Alley, W. E.) The Lorentz gas. (*See* **82h:82001**)
Allen, J. W. (*with* Diestler, D. J.) Universal formulas for classical transport coefficients: the zero-frequency component. **82c:82105**
Alley, W. E. *See* **Alder, B. J., (*See* 82h:82001)**
Anšelevič, V. V. (*with* Vologodskiĭ, A. V.) Random walk on a one-dimensional inhomogeneous lattice. **82k:82057**
Arthur, M. D. (*with* Zweifel, P. F.) Anisotropic plasma boundary value problem for longitudinal waves. **82i:82074**
(*with* Cercignani, Carlo) Nonexistence of a steady rarefied supersonic flow in a half-space. (Italian summary) **82c:82106**
Bányai, L. (*with* Gartner, P.) On the connection between the macroscopical and microscopical evolution in an exactly soluble hopping model. II. Charged particles. **82c:82107**
Bardsley, J. N. (*with* Dubi, A.) The average transport path length in scattering media. **82k:82058**
Barrow, John D. Coagulation with fragmentation. **82c:82108**
Belleni-Morante, Aldo A problem of evolution arising from particle transport with quadratic nonlinearities. **82a:82050**
Particle transport in a slab bounded by capturing and reflecting planes. (Italian summary) **82d:82091**
Bez, W. (*with* Talkner, P.) A new variational method to calculate escape rates in bistable systems. **82d:82092**
Bishnu, S. K. *See* **Das Gupta, S. R., 82c:82109**
Blumen, A. (*with* Zumofen, G.) Energy transfer as a random walk on regular lattices. **82h:82049**
Boffi, V. C. Transport theory for charged particles in electric and magnetic fields. **82i:82075**
Brinati, J. R. (*with* Mizrahi, S. S.) Quantum friction in the c-number picture: the damped harmonic oscillator. **82f:82068**
Bunde, A. (*with* Gouyet, J.-F.) Diffusion in time dependent potentials: a systematic treatment. **82i:82076**
Burschka, M. A. (*with* Titulaer, U. M.) The kinetic boundary layer for the Fokker-Planck equation with absorbing boundary. **82j:82071**
Cercignani, Carlo *See* **Arthur, M. D., 82c:82106**
Chen, Shi Gang Transport process under strong magnetic field and two stationary solutions of the Liouville equation. **82g:82060**
Cibarov, V. A. *See* **Kravcov, G. M., 82d:82094**
Das Gupta, S. R. (*with* Bishnu, S. K.) Exact solution of transport equation in finite multiplying media. **82c:82109**
Devreese, J. T. Electron-phonon interaction: polaron transport. (*See* **82f:82004**)
Diestler, D. J. *See* **Allen, J. W., 82c:82105**
Dubi, A. *See* **Bardsley, J. N., 82k:82058**
Duderstadt, James J. *See* **Mehlhorn, Thomas A., 82b:82098**
Eu, Byung Chan Nonlinear transport processes in gases. **82b:82096**
Fedotov, I. A. *See* **Pavlov, K. B.; et al., 82k:82059**
Ferreira, Arturo V. *See* **Sequeira, F. M.; et al., 82d:82098**
Gallone, S. Neutron transport half-range orthogonal polynomial sets and related quadrature sums and properties. (Italian and Russian summaries) **82h:82050**
Garcia, R. D. M. *See* **Siewert, C. E.; et al., 82c:82114**
Gartner, P. *See* **Bányai, L., 82c:82107**
Gouyet, J.-F. *See* **Bunde, A., 82i:82076**
Grandjean, P. *See* **Siewert, C. E.; et al., 82c:82114**
Grassberger, P. Velocity autocorrelations in a simple model. **82a:82051**
de Groot, S. R. On relativistic kinetic theory of transport processes, in particular of neutrino systems. (French summary) **82a:82052**
Haus, Joseph W. (*with* Lücke, M.) Statistical dynamics of conserved densities for the hard-sphere Lorentz gas. **82m:82044**
Hisamutdinov, A. I. *See* **Sidorenko, L. L., 82h:82055**

Hu, Hui Ling *See* **Xia, Meng Fen**, **82f:82072**
Ishinabe, T. (*with* Whittington, S. G.) Surface critical exponents for self-avoiding walks on the tetrahedral lattice. **82b:82097**
Karmeshu Brownian motion of a particle with frequency dependent friction. **82d:82093**
Kelley, C. T. Multigroup neutron transport in inhomogeneous slabs. **82j:82072**
Kravcov, G. M. (*with* Cibarov, V. A.) Transport phenomena in a concentrated gas suspension. (Russian) **82d:82094**
Langouche, F. (*with* Roekaerts, D.; Tirapegui, Enrique) On the most probable path for diffusion processes. **82h:82051**
Larsen, Edward W. Solution of the inverse problem in multigroup transport theory. **82d:82095**
See also **Pomraning, G. C.**, **82f:82070**
Lekkerkerker, Cornelius Gerrit Three-term recurrence relations in transport theory. **82f:82069**
Lücke, M. *See* **Haus, Joseph W.**, **82m:82044**
Marčuk, G. I. (*with* Agoškov, V. I.) Kinetic equations and variational principles. **82i:82077**
McCormick, N. J. (*with* Sanchez, R.) Inverse problem transport calculations for anisotropic scattering coefficients. **82c:82110**
Mehlhorn, Thomas A. (*with* Duderstadt, James J.) A discrete ordinates solution of the Fokker-Planck equation characterizing charged particle transport. **82b:82098**
Miao, Quan Sheng The random walk method for the general neutron transport equation. (Chinese. English summary) **82h:82052**
Mizrahi, S. S. *See* **Brinati, J. R.**, **82f:82068**
Nonnenmacher, Theo F. Comments on the spinodal decomposition mechanism and the kinetics of phase separation. **82i:82078**
Oliveira, J. S. *See* **Sequeira, F. M.; et al.**, **82d:82098**
Pao, C. V. Asymptotic behavior of neutron transport in a slab with moving boundaries. **82c:82111**
Paul, R. (*with* Wagstaff, K.) Application of Padé approximants to the velocity-autocorrelation function. **82h:82053**
Pavlov, K. B. (*with* Romanov, A. S.; Fedotov, I. A.) Propagation of perturbations in nonlinear transport processes described by an equation of turbulent filtration. (Russian) **82k:82059**
Pedersen, J. Boiden *See* **Sibani, Paolo**, **82h:82054**
Phillies, George D. J. Contribution of nonhydrodynamic interactions to the concentration dependence of the friction factor of the mutual diffusion coefficient. **82k:82060**
Piña, E. (*with* Rosales, M. A.) A hydrodynamic formalism for Brownian systems. (Spanish summary) **82d:82096**
Pomraning, G. C. (*with* Larsen, Edward W.) Elementary solutions of the linear transport equation for continuously varying spatial media. **82f:82070**
Pope, S. B. Transport equation for the joint probability density function of velocity and scalars in turbulent flow. **82d:82097**
Prinja, A. K. On the Green's function for heterogeneous media in one-speed transport theory. **82c:82112**
Psarev, V. I. On the theory of Ostwald's coagulation of microparticles in solid disperse systems. (Russian) **82c:82113**
Roekaerts, D. *See* **Langouche, F.; et al.**, **82h:82051**
Rogovcov, N. N. Transport theory and the general invariance principle. (Russian. English summary) **82f:82071**
Romanov, A. S. *See* **Pavlov, K. B.; et al.**, **82k:82059**
Rosales, M. A. *See* **Piña, E.**, **82d:82096**
Rubin, R. J. Energy flow and thermal conductivity in one-dimensional, harmonic, isotopically disordered crystals. (*See* **82h:82001**)
Russel, W. B. Brownian motion of small particles suspended in liquids. (*See* **82f:76001**)
Sanchez, R. *See* **McCormick, N. J.**, **82c:82110**
Santos, Rafael F. Sur l'approximation de diffusion de la solution de l'équation de transport. (English summary) [Diffusion approximation of the solution of the transport equation] **82j:82073**
Scher, H. (*with* Wu, C. H.) Random walk theory of a trap-controlled hopping transport process. **82a:82053**
Sequeira, F. M. (*with* Oliveira, J. S.; Ferreira, Arturo V.) Étude de l'équation de Boltzmann du transport de neutrons. I. **82d:82098**
Sibani, Paolo (*with* Pedersen, J. Boiden) A perturbation solution of the Smoluchowski equation in the weak potential region. **82h:82054**
Sidorenko, L. L. (*with* Hisamutdinov, A. I.) Calculation by Monte Carlo methods of derivatives of linear flow functionals with respect to the parameters of surface. (Russian) **82h:82055**
Siewert, C. E. (*with* Garcia, R. D. M.; Grandjean, P.) A concise and accurate solution for Poiseuille flow in a plane channel. **82c:82114**
Talkner, P. *See* **Bez, W.**, **82d:82092**
Tirapegui, Enrique *See* **Langouche, F.; et al.**, **82h:82051**
Titulaer, U. M. *See* **Burschka, M. A.**, **82j:82071**
Vologodskiĭ, A. V. *See* **Anšelevič, V. V.**, **82k:82057**
Wagstaff, K. *See* **Paul, R.**, **82h:82053**
Whittington, S. G. *See* **Ishinabe, T.**, **82b:82097**
Wu, C. H. *See* **Scher, H.**, **82a:82053**
Xia, Meng Fen (*with* Hu, Hui Ling) Kinetic equation in a stochastic magnetic field. (Chinese. English summary) **82f:82072**
Zumofen, G. *See* **Blumen, A.**, **82h:82049**
Zwanzig, Robert Problems in nonlinear transport theory. (*See* **82g:82004**)
Zweifel, P. F. Twenty years of transport theory. **82e:82026**
See also **Arthur, M. D.**, **82i:82074**

secondary classifications:

Agop, Marcel *See* **Mercheş, Ioan**, **(82h:83045)**
Agoškov, V. I. Differential properties of solutions of periodic problems of particle transport. (Russian) **(82c:35038)**
Aifantis, Elias C. (*with* Hill, James M.) On the theory of diffusion in media with double diffusivity. I. Basic mathematical results. **(82d:80007a)**
See also **Hill, James M.**, **(82d:80007b)**
Anderson, P. W. (*with* Lee, Patrick A.) The Thouless conjecture for a one-dimensional chain. **(82i:82044)**
Bahvalov, N. S. Averaging of the transport equation for a periodic medium. (Russian) **(82j:82030)**
Beals, Richard An abstract treatment of some forward-backward problems of transport and scattering. **(82b:47005)**
Box, Michael A. *See* **McKellar, Bruce H. J.**, **(82k:86005)**
Brand, H. (*with* Schenzle, A.) A soluble stochastic model for first-order type nonequilibrium phase transitions. **(82g:82025)**
Braun, E. A model of Brownian dynamics for colloidal suspensions. **(82g:82026)**
Brunnschweiler, A. A connection between the Boltzmann equation and the Ornstein-Uhlenbeck process. **(82i:82037)**
Catto, P. J. (*with* Hazeltine, R. D.) Omnigenous equilibria for charged particles in a magnetic field. **(82g:82041)**
Cerofolini, G. F. Questions of method in a large class of improperly posed problems. **(82g:45001)**
Choi, Sang Don *See* **Hara, Hiroaki**, **(82c:82011)**
Cytovič, V. N. Effect of mass renormalization in the stochastic acceleration of particles. **(82c:82080)**
Devaux, C. (*with* Siewert, C. E.) The F_N method for radiative transfer problems without azimuthal symmetry. (German summary) **(82d:85009)**
Dolin, L. S. Solution of the radiation transfer equation in a small-angle approximation for a stratified turbid medium with photon path dispersion taken into account. **(82f:85001)**
Dorfman, J. R. Advances and challenges in the kinetic theory of gases. (French summary) **(82g:82028)**
Fortini, André Unitary determinantal solution of time-dependent Schrödinger equations. **(82a:81011)**
(Ganapol, B. D.) *See* **New frontiers in transport theory**, **(82k:82001)**
(Garrido, Luis) *See* **Systems far from equilibrium**, **(82g:82004)**
Gluck, P. Solutions of the Boltzmann equation. **(82a:82033)**
Grandy, W. T., Jr. Principle of maximum entropy and irreversible processes. **(82b:82038)**
Guan, Zhao Zhi Some problems of mathematical physics and systems science. (Chinese) **(82c:00014)**
Haake, Fritz (*with* Thol, Klaus) Universality classes for one-dimensional kinetic Ising models. **(82c:82063)**
Hara, Hiroaki (*with* Choi, Sang Don) A theory of the coupled random walk process. **(82c:82011)**
Hazeltine, R. D. *See* **Catto, P. J.**, **(82g:82041)**
Hill, James M. (*with* Aifantis, Elias C.) On the theory of diffusion in media with double diffusivity. II. Boundary-value problems. **(82d:80007b)**
See also **Aifantis, Elias C.**, **(82d:80007a)**
Kelley, C. T. (*with* Mullikin, T. W.) Collocation methods for some singular integral equations in linear transport theory. **(82k:65084)**
Klein, Douglas J. Asymptotic distributions for self-avoiding walks constrained to strips, cylinders, and tubes. **(82b:60088)**
Kozak, John J. *See* **Walsh, Cecilia A.**, **(82k:82048)**
Larsen, Edward W. Bounds and maximum principles for the solution of the linear transport equation. **(82f:82073)**
Lee, Patrick A. *See* **Anderson, P. W.**, **(82i:82044)**
Leicina, V. G. (*with* Pavljukevič, N. V.; Rudin, G. I.) On the calculation of the barodiffusion constants of binary gas mixtures (McCormack model). **(82d:80015)**
Lux, I. Another special method to sample probability density functions. (German summary) **(82e:65141)**
Maccone, C. Eigenfunction expansion for fractional Brownian motions. (Italian and Russian summaries) **(82f:60179)**
Marek, Ivo Asymptotic behavior of solutions of a homogeneous transport equation. (Russian) **(82a:45022)**
Marshall, T. W. Brownian motion and quasi-Markov processes. **(82g:82009)**
Masson, D. Moment problem approximants to the Chandrasekhar H-equation. **(82e:45014)**
McKellar, Bruce H. J. (*with* Box, Michael A.) The scaling group of the radiative transfer equation. **(82k:86005)**
Mercheş, Ioan (*with* Agop, Marcel) Transport equations in the relativistic hydromagnetics of spin-fluids. **(82h:83045)**
Mullikin, T. W. *See* **Kelley, C. T.**, **(82k:65084)**
Nagel', Ju. A. A model and kinetic equations for a charged mixture of gases in the presence of phase transitions. **(82c:82060)**
Pavljukevič, N. V. *See* **Leicina, V. G.; et al.**, **(82d:80015)**
Pavlov, K. B. (*with* Romanov, A. S.) On the change in the region of localization of perturbations in nonlinear transport processes. **(82m:35078)**
Pomraning, G. C. The criticality problem for an exponential atmosphere. **(82j:85008)**
Romanov, A. S. *See* **Pavlov, K. B.**, **(82m:35078)**
Rudin, G. I. *See* **Leicina, V. G.; et al.**, **(82d:80015)**
Ryter, D. Brownian motion in inhomogeneous media and with interacting particles. **(82a:82007)**
Santos, Rafael F. Analyse asymptotique des équations de transport dans le cas d'évolution. (English summary) [Asymptotic analysis of transport equations in the evolution case] **(82i:45011)**
Schenzle, A. *See* **Brand, H.**, **(82g:82025)**
Siewert, C. E. *See* **Devaux, C.**, **(82d:85009)**
Thol, Klaus *See* **Haake, Fritz**, **(82c:82063)**
Walsh, Cecilia A. (*with* Kozak, John J.) Exact algorithm for d-dimensional walks on finite and infinite lattices with traps. **(82k:82048)**
Zvjagin, I. P. Quantum-statistical theory of transport by localized carriers in disordered semiconductors. **(82d:82061)**
Barcelona ★Systems far from equilibrium. **(82g:82004)**

Conference:
Sitges, Statistical Mechanics ★Systems far from equilibrium. **(82g:82004)**
Transport Theory ★New frontiers in transport theory. **(82k:82001)**
New frontiers in transport theory ★New frontiers in transport theory. **(82k:82001)**
Sitges ★Systems far from equilibrium. **(82g:82004)**
Statistical mechanics ★Systems far from equilibrium. **(82g:82004)**
Systems far from equilibrium ★Systems far from equilibrium. **(82g:82004)**
Tucson, Ariz. ★New frontiers in transport theory. **(82k:82001)**

82A75 Nuclear reactor theory

Ackroyd, R. T. (*with* Galliara, J.; Williams, M. M. R.) A finite element technique for the even-parity neutron transport equation. **82h:82099**
Borgioli, Giovanni (*with* Busoni, Giorgio; Frosali, Giovanni) Strict solution of a nonlinear evolution problem in a time dependent domain. **82d:82099**
Busoni, Giorgio *See* **Borgioli, Giovanni; et al., 82d:82099**
Frosali, Giovanni *See* **Borgioli, Giovanni; et al., 82d:82099**
Galliara, J. *See* **Ackroyd, R. T.; et al., 82h:82099**
Kaper, Hans G. Long-time behavior of a nuclear reactor. (*See* **82k:34002**)
Larsen, Edward W. On the chord length across a system. **82c:82115**
Bounds and maximum principles for the solution of the linear transport equation. **82f:82073**
Marek, Ivo Homogenization in neutron diffusion. **82g:82061**
Mehta, B. S. Theoretical consideration of slowing-down density of neutrons in a spherical symmetry. **82f:82074**
Mihailov, G. A. (*with* Musihin, S. G.) Algorithms for calculations of a complex reactor cell by the Monte Carlo method. (Russian) **82h:82056**
de Mottoni, P. (*with* Tesei, Alberto) A comparative analysis of some semilinear parabolic systems modelling the dynamics of fast nuclear reactors. (German and Russian summaries) **82g:82062**
Musihin, S. G. *See* **Mihailov, G. A., 82h:82056**
Neymotin, Evsey The influence of a moving medium on neutron distribution. **82g:82063**
Tesei, Alberto *See* **de Mottoni, P., 82g:82062**
Williams, M. M. R. *See* **Ackroyd, R. T.; et al., 82h:82099**

secondary classifications:

Christensen, G. S. *See* **Nieva, R., (82m:49029)**
Dunn, William L. Inverse Monte Carlo analysis. **(82g:65009)**
Larsen, Edward W. Solution of the inverse problem in multigroup transport theory. **(82d:82095)**
de Mottoni, P. (*with* Tesei, Alberto) A singular perturbation approach for a reaction diffusion system arising in nuclear reactor theory. **(82d:35021)**
Nieva, R. (*with* Christensen, G. S.) Optimal control of distributed nuclear reactors using functional analysis. **(82m:49029)**
Sakabekov, A. Justification of the variational principle for a system of the method of spherical harmonics in *x-y* geometry. (Russian) **(82d:49014)**
Tesei, Alberto *See* **de Mottoni, P., (82d:35021)**

82A77 Mathematically heuristic statistical physics (must also be assigned at least one other classification number in this section)

Amaldi, E. Radioactivity, a pragmatic pillar of probabilistic conceptions. (*See* **82m:81003**)
Cukanov, V. D. *See* **Ivančenko, E. A., 82e:82027**
Dangelmayr, G. *See* **Keller, Karl; et al.,** (*See* **80j:00017**)
Eikemeier, H. *See* **Keller, Karl; et al.,** (*See* **80j:00017**)
Haken, Hermann Self-organization through increase of number of components. **82j:82074**
Ivančenko, E. A. (*with* Cukanov, V. D.) Many-particle scattering in the theory of a degenerate Fermi gas. (Russian. English summary) **82e:82027**
Keller, Karl (*with* Dangelmayr, G.; Eikemeier, H.) Phase diagrams and catastrophes. (*See* **80j:00017**)
Langer, James S. Kinetics of metastable states. **82m:82045**
Petrov, Ė. G. Kinetic equations for quantum subsystems with a finite number of degrees of freedom in a condensed medium. (Russian. English summary) **82h:82057**
Pomeau, Y. A solvable problem in Poisson statistics. **82d:82100**
Struminskiĭ, V. V. On the theory of systems of equal particles. (Russian) **82c:82116**

secondary classifications:

Benguria, Rafael (*with* Kac, Mark) Quantum Langevin equation. **(82c:82022)**
de Boer, W. P. H. Quantum kinetic theory of charged Klein-Gordon particles. I. Quantum distribution function. **(82c:82056a)**
Quantum kinetic theory of charged Klein-Gordon particles. II. Perturbation theory of nonequilibrium statistical Green functions. **(82c:82056b)**
Quantum kinetic theory of charged Klein-Gordon particles. III. Feynman rules and thermal equilibrium. **(82c:82056c)**
Quantum kinetic theory of charged Klein-Gordon particles. IV. Linear kinetic equation. **(82c:82056d)**
Bruno, J. (*with* Sak, J.) Renormalization group for first-order phase transitions: equation of state of the compressible Ising magnet. **(82i:82023a)**
(*with* Sak, J.) Two-point correlations near the phase transition in a compressible magnet. **(82i:82023b)**
Coniglio, A. *See* **Klein, William, (82g:82039)**
Durczewski, Krzysztof *See* **Klamut, Jan; et al., (82g:82001)**
Fedjanin, V. K. *See* **Moščinskiĭ, B. V.; et al., (82k:82020)**
Galgani, Luigi Statistical mechanics of weakly coupled oscillators presenting stochasticity thresholds. **(82j:82008)**
Hansen, E. Kjaersgaard *See* **Mouritsen, O. G.; et al., (82i:82027a)**
Kac, Mark *See* **Benguria, Rafael, (82c:82022)**
Klamut, Jan (*with* Durczewski, Krzysztof; Sznajd, Józef) ★Wstęp do fizyki przejść fazowych. (Polish) [Introduction to physics of phase transitions] **(82g:82001)**
Klein, William (*with* Coniglio, A.) Thermal phase transitions at the percolation threshold. **(82g:82039)**
Knak Jensen, S. J. *See* **Mouritsen, O. G.; et al., (82i:82027a)** *and* **(82i:82027b)**
Martinelli, G. (*with* Parisi, Giorgio) A systematical improvement of the Migdal recursion formula. **(82h:82017)**
Moščinskiĭ, B. V. (*with* Rodrigues, K.; Fedjanin, V. K.) The generating function and a functional analogue of the Bogoljubov variational method. (Russian. English summary) **(82k:82020)**
Mouritsen, O. G. (*with* Hansen, E. Kjaersgaard; Knak Jensen, S. J.) General correlation function series: phase diagram of the anisotropic Heisenberg antiferromagnet in a field. **(82i:82027a)**
(*with* Knak Jensen, S. J.) Phase diagram of a uniaxially stressed cubic antiferromagnet. **(82i:82027b)**
Parisi, Giorgio *See* **Martinelli, G., (82h:82017)**
Percus, J. K. Shielded distribution approximation for a wall-bounded classical fluid. **(82f:82050)**
Rodrigues, K. *See* **Moščinskiĭ, B. V.; et al., (82k:82020)**
Sak, J. *See* **Bruno, J., (82i:82023a)** *and* **(82i:82023b)**
Shaw, Robert Strange attractors, chaotic behavior, and information flow. **(82k:58069)**
Sznajd, Józef *See* **Klamut, Jan; et al., (82g:82001)**
Whitaker, M. A. B. Mathematics of switching processes with applications to squash and statistical mechanics. **(82k:90150)**

82A99 Miscellaneous topics

Mork, K. J. *See* **Razi Naqvi, K.; et al., 82c:82117**
Razi Naqvi, K. (*with* Waldenstrøm, S.; Mork, K. J.) Unification of the methods of Onsager and Monchick for calculating the probabilities of various fates in diffusion-controlled reactions, with applications to diffusion in space and in a plane. **82c:82117**
Waldenstrøm, S. *See* **Razi Naqvi, K.; et al., 82c:82117**

secondary classifications:

Barone, E. Further remarks on a semilinear problem arising from kinetic theory of vehicular traffic. **(82i:90042)**
Bogoljubov, N. N. (*with* Bogoljubov, N. N., Jr.) Kinetic equation for a dynamic system interacting with a phonon field. (Russian. English summary) **(82j:82060)**
Bogoljubov, N. N., Jr. *See* **Bogoljubov, N. N., (82j:82060)**
(Fok, V. A.) *See* **Krylov, N. S., (82e:82001)**
Krylov, N. S. ★Works on the foundations of statistical physics. **(82e:82001)**
Mezei, Mihaly On the selection of the particle to be perturbed in the Monte Carlo method. **(82i:65005)**
(Migdal, A. B.) *See* **Krylov, N. S., (82e:82001)**
Oevel, W. (*with* Schröter, J.) On the asymmetry of the stress tensor of materials with internal degrees of freedom. **(82d:73009)**
Pavlov, V. I. An approach to the description of small-scale self-focusing. (Russian) **(82d:78010)**
Plath, P. J. Strukturelle Aspekte des Aromatizitätsbegriffes. **(82i:92044)**
Schröter, J. *See* **Oevel, W., (82d:73009)**
Semenzato, Roberto An iteration method for a nonlinear initial value problem arising from the kinetic theory of vehicular traffic. **(82g:90048a)**
Global solutions for a nonlinear initial value problem arising from the kinetic theory of vehicular traffic: existence, uniqueness and continuity with respect to initial data. **(82g:90048b)**
(Sinaĭ, Ja. G.) *See* **Krylov, N. S., (82e:82001)**
Smith, Richard L. A probability model for fibrous composites with local load sharing. **(82d:60172)**
(Wightman, A. S.) *See* **Krylov, N. S., (82e:82001)**
(Zeeman, Ju. L.) *See* **Krylov, N. S., (82e:82001)**
Biography:
Krylov, N. S. *See* **Krylov, N. S., (82e:82001)**

83–XX RELATIVITY

83–01 Elementary exposition, textbooks

Narlikar, Jayant V. ★Lectures on general relativity and cosmology. **82h:83001**

secondary classifications:

Chern, Shiing Shen Geometry and physics. **(82i:00025)**

83–02 Advanced exposition (research surveys, monographs, etc.)

Bergmann, Peter G. The space-time concept in general relativity. (*See* **82h:83002**)
Goldberg, Joshua N. Invariant transformations, conservation laws, and energy-momentum. **82c:83001**
Herlt, E. *See* **Kramer, Dietrich; et al., 82h:83002**
Isenberg, James A. (*with* Nester, James M.) Canonical gravity. **82e:83001**
Kramer, Dietrich (*with* Stephani, H.; Herlt, E.; MacCallum, M.) ★Exact solutions of Einstein's field equations. **82h:83002**
MacCallum, M. *See* **Kramer, Dietrich; et al., 82h:83002**
Nester, James M. *See* **Isenberg, James A., 82e:83001**
Penrose, Roger (*with* Ward, Richard Samuel) Twistors for flat and curved space-time. **82j:83001**
(Schmutzer, Ernst) *See* **Kramer, Dietrich; et al., 82h:83002**
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Beem, John K. (*with* Ehrlich, Paul E.) ★Global Lorentzian geometry. **(82i:53051)**
Blakemore, Carroll F. Modern mathematical techniques in theoretical physics. **(82c:00013)**
Corson, Edward Michael ★Introduction to tensors, spinors, and relativistic wave-equations. **(82m:01079)**
Ehrlich, Paul E. *See* **Beem, John K., (82i:53051)**
Marsden, Jerrold E. ★Lectures on geometric methods in mathematical physics. **(82j:58046)**
Newman, Ezra T. (*with* Tod, K. P.) Asymptotically flat space-times. **(82j:83017)**
Tod, K. P. *See* **Newman, Ezra T., (82j:83017)**

83–03 Historical (must also be assigned at least one classification number from Section 01)

Cullwick, E. G. Einstein and special relativity. Some inconsistencies in his electrodynamics. **82j:83002**
(De Finis, Francesco) *See* **Relativity, quanta, and cosmology in the development of the scientific thought of Albert Einstein, 82b:83002**
(Dobroslavskiĭ, A. S.) *See* **Schmutzer, Ernst, 82i:83001**
(Einstein, Albert) *See* **Albert Einstein and the theory of gravitation, 82a:83002; Relativity, quanta, and cosmology in the development of the scientific thought of Albert Einstein, 82b:83002; Some strangeness in the proportion, 82d:83002; Cullwick, E. G., 82j:83002** *and* **Miller, Arthur I., 82m:83001**
Jordan, Pascual Einstein and gravitation. (*See* **82b:83002**)
Kanitscheider, Bernulf Die philosophische Relevanz der Kosmologie. **82d:83001**
(Kuranskiĭ, E.) *See* **Albert Einstein and the theory of gravitation, 82a:83002**
Lichnerowicz, André Relativity and mathematical physics. (*See* **82b:83002**)
Miller, Arthur I. ★Albert Einstein's special theory of relativity. **82m:83001**
Møller, Christian Triumphs and limitations of Einstein's theory of relativity and gravitation. (*See* **82b:83002**)
(Ne'eman, Yuval) *See* **To fulfill a vision, 82d:83003**
(Pantaleo, Mario) *See* **Relativity, quanta, and cosmology in the development of the scientific thought of Albert Einstein, 82b:83002**
Schmutzer, Ernst ★Теория относительности—современное представление. (Russian) [The theory of relativity—a modern representation] **82i:83001**
Trautman, Andrzej The gravitational field problem in Einstein's works. (Russian) **82j:83003**
Treder, Hans-Jürgen Die teleskopischen Prinzipien der Gravitationstheorie. (English summary) **82a:83001**
Wheeler, John Archibald The quantum and the universe. (*See* **82b:83002**)
(Woolf, Harry) *See* **Some strangeness in the proportion, 82d:83002**
(Zel'dovič, Ja. B.) *See* **Schmutzer, Ernst, 82i:83001**
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Gauge theory ★To fulfill a vision. **82d:83003**
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Jerusalem ★To fulfill a vision. **82d:83003**
Princeton, N.J. ★Some strangeness in the proportion. **82d:83002**
Relativity, quanta, and cosmology in the development of the scientific thought of Albert Einstein ★Relativity, quanta, and cosmology in the development of the scientific thought of Albert Einstein. Vol. I, II. **82b:83002**
Some strangeness in the proportion ★Some strangeness in the proportion. **82d:83002**
Symposium:
Einstein Centennial ★Some strangeness in the proportion. **82d:83002**
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To fulfill a vision ★To fulfill a vision. **82d:83003**

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Aronov, R. A. (*with* Bolotovskiĭ, B. M.; Mickevič, N. V.) Elements of materialism and dialectics in shaping A. Einstein's philosophical views. (Russian. English summary) **(82f:01075)**
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(Besso, Michele) *See* **Correspondence: Einstein, Albert–Besso, Michele, (82i:01040)**
Bethe, Hans (*with* Hoffmann, Banesh; Bargmann, Valentine; Bergmann, Peter G.; Straus, Ernst G.) Working with Einstein. (*See* **82d:83002**)
Bolotovskiĭ, B. M. *See* **Aronov, R. A.; et al., (82f:01075)**
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Črelašvili, A. G. On the history of relativity in Georgia in the 1920's. (Georgian. Russian and English summaries) **(82a:01024)**
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Einstein, Albert Zum Relativitäts-Problem. **(82a:01054)**
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(Feigl, Herbert) *See* **Schlick, Moritz, (82b:03021a)** *and* **(82b:03021b)**
(Frenkel', V. Ja.) *See* **Correspondence: Einstein, Albert–Besso, Michele, (82i:01040)**
(Gandel'sman, I. L.) *See* **Correspondence: Einstein, Albert–Besso, Michele, (82i:01040)**
(Hartmann, Hans) *See* **Albert Einstein: philosopher and scientist, (82e:01077)**
(Heath, Peter) *See* **Schlick, Moritz, (82b:03021a)** *and* **(82b:03021b)**
Hermann, Armin Einstein und Deutschland. **(82c:01074)**
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(Pauli, Wolfgang) *See* **Richter, Steffen, (82i:01060)**
(Philippi, M. E.) *See* **Einstein, Albert, (82a:01054)**
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Einstein, Albert–Besso, Michele Correspondence of A. Einstein and M. Besso, 1903–1955. (Russian) **(82i:01040)**
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83–04 Explicit machine computation and programs (not the theory of computation or programming)

Dautcourt, G. (*with* Jann, K.-P.; Riemer, E.; Riemer, M.) User's guide to REDUCE subroutines for algebraic computations in general relativity. **82m:83002**
Jann, K.-P. *See* **Dautcourt, G.; et al., 82m:83002**
Krasiński, Andrzej (*with* Perkowski, Marek) ORTOCARTAN—a new computer program for analytic calculations in general relativity. **82b:83003**
Perkowski, Marek *See* **Krasiński, Andrzej, 82b:83003**
Riemer, E. *See* **Dautcourt, G.; et al., 82m:83002**
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83–05 Experimental papers

83–06 Proceedings, conferences, etc.

(Einstein, Albert) *See* **General relativity and gravitation, 82d:83004**
(Held, A.) *See* **General relativity and gravitation, 82d:83004**
(Hughston, L. P.) *See* **Advances in twistor theory, 82e:83002**
(Narlikar, Jayant V.) *See* **Gravitation, quanta and the universe, 82d:83005**
(Prasanna, A. R.) *See* **Gravitation, quanta and the universe, 82d:83005**
(Vishveshwara, C. V.) *See* **Gravitation, quanta and the universe, 82d:83005**
(Ward, Richard Samuel) *See* **Advances in twistor theory, 82e:83002**
Advances in twistor theory ★Advances in twistor theory. **82e:83002**
Ahmedabad ★Gravitation, quanta and the universe. **82d:83005**

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Birth of Einstein, Albert ★General relativity and gravitation. Vol. 2. **82d:83004**
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Twistor theory ★Advances in twistor theory. **82e:83002**

secondary classifications:

(Einstein, Albert) *See* **Proceedings: Einstein Centennial Symposium on Fundamental Physics, (82h:81005)**
(Garcia, P. L.) *See* **Differential geometrical methods in mathematical physics, (82a:81003)**
Gilbert, Felix Einstein's Europe. (*See* **82d:83002**)
(Jouvet, Bernard) *See* **Field theory, quantization and statistical physics, (82b:81004)**
(Moore, Steven M.) *See* **Proceedings: Einstein Centennial Symposium on Fundamental Physics, (82h:81005)**
(Mostepanenko, A. M.) *See* **Quantum mechanics and the theory of relativity, (82g:81003)**
(Pavinskiĭ, P. P.) *See* **Quantum mechanics and the theory of relativity, (82g:81003)**
(Pérez-Rendón, A.) *See* **Differential geometrical methods in mathematical physics, (82a:81003)**
(Rodríguez-Vargas, A. M.) *See* **Proceedings: Einstein Centennial Symposium on Fundamental Physics, (82h:81005)**
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(Souriau, J. M.) *See* **Differential geometrical methods in mathematical physics, (82a:81003)**
(Tirapegui, Enrique) *See* **Field theory, quantization and statistical physics, (82b:81004)**
(Violini, G.) *See* **Proceedings: Einstein Centennial Symposium on Fundamental Physics, (82h:81005)**
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Colloquium:
CNRS, Differential Methods in Mathematical Physics ★Differential geometrical methods in mathematical physics. **(82a:81003)**
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83A05 Special relativity

Agudin, J. L. (*with* Platzeck, A. M.) Resolution of the fields of an accelerated charge into their bradyonic and tachyonic parts. **82f:83001**
Berzi, Vittorio On a condition characterizing the Lorentz and Galilei groups. **82b:83004**
Brginshaw, A. J. Elementary proof of Zeeman's theorem. **82c:83002**
Caldirola, P. Introduction of the chronon in the relativistic theory of the electron. (*See* **82b:83002**)
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Christensen, Ferrel Special relativity and space-like time. **82e:83004**
Datta Majumdar, S. Arbitrarily moving frames of reference in relativity. **82c:83003**
DeFacio, B. (*with* Dennis, Phillip W.; Retzloff, David G.) Presymmetry of classical relativistic particles. **82h:83003**
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Fahnline, Donald E. Classification of orbits of Fokker's time-asymmetric relativistic two-body problem. **82i:83003**
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Gaida, R. P. (*with* Krohmal'skiĭ, T. E.) Approximate relativistic variables of the center of mass for a system of two interacting particles. (Russian) **82c:83006**
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Gariel, J. Un nouvel effet couplé en thermodynamique relativiste locale des phénomènes irréversibles. (English summary) **82i:83004**
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Lapkovskiĭ, V. K. Hyperconvergence of two-dimensional pseudo-Euclidean planes in a space of special relativity. (Russian) **82f:83006**
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Llosa, Josep *See* **Iranzo, V.; et al., 82m:83003**
Mansouri, Reza Broken Lorentz invariance and conventionality of clock synchronization. **82h:83006**
Maravall Casesnoves, Dario Non-Riemannian spaces and the use of the methods of classical mechanics in the theory of relativity. (Spanish. English summary) **82e:83006**
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Palumbo, Annunziata Sur les ondes non linéaires dispersives et dissipatives en relativité restreinte. (English summary) **82i:83005**
Panofsky, Wolfgang K. H. Special relativity theory in engineering. (*See* **82d:83002**)
Platzeck, A. M. *See* **Agudin, J. L., 82f:83001**
Polikarov, Asaria Overturn and continuity of the hypotheses in the framing of the theory of relativity. **82c:83008**
Pons, J. M. *See* **Gomis, J., 82a:83003**
Ray, Dipankar Comment on: "On the possibility of a three-temporal Lorentz transformation" [Phys. Lett. A **70** (1979), no. 2, 87–88] by G. Ziino. **82a:83005b**
Solutions for a relativistic string in a uniform static external field. **82f:83002**
Recami, Erasmo Relativity and beyond. (*See* **82b:83002**)
See also **Caldirola, P., 82e:83003**
Retzloff, David G. *See* **DeFacio, B., 82e:83005** *and* **82h:83003**
Schommers, W. Inertial frames of reference: mass coupling to space and time. **82i:83006**
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Stachel, John Einstein and the rigidly rotating disk. **82f:83007**
Stringa, Silvana The relativistic motion of elastic bodies. (Italian. English summary) **82j:83004**
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Asanov, R. A. *See* **Afanas'ev, G. N., (82j:70005)**
Baltas, A. (*with* Gavroglu, K.) A modification of Popper's tetradic schema and the special relativity theory. **(82h:03008)**
Balzer, Wolfgang ★Empirische Geometrie und Raum-Zeit-Theorie in mengentheoretischer Darstellung. (German) [Empirical geometry and space-time theory in set-theoretic representation] **(82i:03019)**
Bel, Luis (*with* Martín, Jésus) Predictive relativistic mechanics of systems of N particles with spin. **(82k:70012a)**
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A Beckman Quarles type theorem for plane Lorentz transformations. **(82i:51015)**
Berezin, V. T. The difference between the field of parameters of world lines of the elements of a medium and the field of intrinsic times, taking account of diffusion. (Russian. English summary) **(82c:76091)**
Buiculescu-Massier, Doina On the Lorentz transformation. (Romanian) **(82a:51007)**
Choquet-Bruhat, Yvonne Solutions globales des équations de Maxwell-Dirac-Klein-Gordon (masses nulles). (English summary) **(82f:81037)**

Dornfeld, Engelbert (*with* Wochnik, Helmut) Angles in the Lorentz group. (Polish. German summary) **(82g:51008a)**
(*with* Wochnik, Helmut) Axial symmetries in the Lorentz group. (Polish. German summary) **(82g:51008b)**
Eastwood, Michael G. Massless fields and topology. (*See* **82e:83002**)
On raising and lowering helicity. (*See* **82e:83002**)
(*with* Hughston, L. P.) Massless fields based on a line. (*See* **82e:83002**)
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(Einstein, Albert) *See* **Miller, Arthur I.**, **(82m:83001)**
Gariel, J. Rapprochement entre deux formalismes en thermodynamique relativiste des phénomènes irréversibles. (English summary) **(82f:76046)**
Gavroglu, K. *See* **Baltas, A.**, **(82b:03008)**
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Gomis, J. (*with* Lobo, J. A.; Pons, J. M.) A singular Lagrangian model for two interacting relativistic particles. (French summary) **(82i:70014)**
Grassini, Renato On the structure of space-time. (Italian. English summary) **(82d:83045)**
Guc, A. K. On the bases of space-time geometry. (Russian) **(82g:51021)**
Isotone mappings of disconnectedly ordered Euclidean space. (Russian) **(82j:51027)**
Gurov, L. G. Stability of Lorentz transformations in n-dimensional space. (Russian) **(82i:53052)**
Horndeski, Gregory Walter Remarks on charged point particles in special relativity. **(82m:78011)**
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85–XX ASTRONOMY AND ASTROPHYSICS {For celestial mechanics, see 70F15.}

85–01 Elementary exposition, textbooks

85–02 Advanced exposition (research surveys, monographs, etc.)

85–03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Aaboe, Asger Observation and theory in Babylonian astronomy. **(82i:01004)**

Beer, Arthur (*with* Field, Judith V.) Kepler—his times, his work, his life and 400 years. **(82e:01031)**

(Bessel, Friedrich Wilhelm) *See* **Gauß, Carl Friedrich, (82j:01076)**

(Black, Matthew) *See* **"Astronomical" chapters of the Ethiopic Book on Enoch (72–82), (82m:01002)**

(Bos, H. J. M.) *See* **Studies on Christiaan Huygens, (82m:01036)**

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★Werke. Ergänzungsreihe. Band V. (German) [Collected works. Supplementary series. Vol. V] **(82e:01124c)**

★Werke. Ergänzungsreihe. Band I. (German) [Collected works. Supplementary series. Vol. I] **(82j:01076)**

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(Gingerich, Owen) *See* **Kennedy, E. S., (82j:01018)**

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(Newton, Isaac) *See* **Hoskin, M. A., (82e:01052)**

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85–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Richardson, M. B. (*with* Van Horn, H. M.; Savedoff, M. P.) A code for general relativistic stellar evolution. **(82h:85004)**
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85–05 Experimental papers

Shapiro, Maurice M. (*with* Silberberg, Rein) Neutrinos, supernovae, and related astrophysics. (*See* **82b:83002**)
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85–06 Proceedings, conferences, etc.

(Dobrovol'skiĭ, O. V.) *See* **Bulletin of the Institute of Astrophysics, 82m:85001a**
Bulletin of the Institute of Astrophysics ★Бюллетень Института Астрофизики. No. 69-70. (Russian) [Bulletin of the Institute of Astrophysics. No. 69-70] **82m:85001a**

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85A04 General

Chandrasekhar, S. On one-dimensional potential barriers having equal reflexion and transmission coefficients. **82h:85001**

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85A05 Galactic and stellar dynamics

Asséo, E. (*with* Cesarsky, C. J.; Lachieze-Rey, M.; Pellat, R.) Energy principle and the interstellar medium. II. Curved equilibria. **82d:85001**
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Hut, P. Stability of tidal equilibrium. **(82d:70024)**
Ipser, James R. (*with* Managan, Robert A.) On the existence and structure of inhomogeneous analogs of the Dedekind and Jacobi ellipsoids. **(82k:76077)**
Korčagin, P. I. *See* **Korčagin, V. I., (82j:76043)**
Korčagin, V. I. (*with* Korčagin, P. I.) Modulation instability of spiral density waves. **(82j:76043)**
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(Lumley, John L.) *See* **Annual review of fluid mechanics, (82f:76001)**
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Saginašvili, M. G. *See* **Agekjan, T. A., (82k:70009)**
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85A10 Astronautics

secondary classifications:

Goldreich, Peter (*with* Tremaine, Scott) Disk-satellite interactions. **(82a:70010)**
Mioc, Vasile The difference between the nodal and Keplerian periods of artificial satellites as an effect of atmospheric drag. (French summary) **(82c:70033)**
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85A15 Stellar structure

Banerjee, S. N. *See* **Ray, G. Deb; et al., 82e:85002**
Berthomieu, G. *See* **Provost, J.; et al., 82i:85005**
Chakraborty, T. K. *See* **Ray, G. Deb; et al., 82e:85002**
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Lebovitz, N. R. On the fluid dynamics of evolving stars. **82i:85004**
Linnell, Albert P. Rotational distortion of polytropes by analytic approximation. III. **82d:85005**
Provost, J. (*with* Berthomieu, G.; Rocca, A.) Low frequency oscillations of a slowly rotating star: quasitoroidal modes. **82i:85005**
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85A20 Stellar atmospheres

Adam, J. A. Mechanical wave-energy flux in magnetoatmospheres: discrete and continuous spectra. **82m:85002**
Bhownick, J. B. An exact analytical solution in radiation gas dynamics. **82d:85007**
Blacher, S. (*with* Perdang, J.) Chaotic solar oscillations? **82j:85002**
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85A25 Radiative transfer

Acquista, Charles (*with* House, Frederick; Jafolla, James) *N*-stream approximations to radiative transfer. **82j:85005**
Adeev, A. V. (*with* Mel'ničenko, A. S.) Linearization of the energy equation when it is simultaneously solved with the equation of radiative transfer. (Russian) **82d:85008**
Andreev, E. S. (*with* Dumkina, G. V.; Kozmanov, M. Ju.) Some exact solutions of equations of spectral nonstationary radiation transfer. (Russian) **82k:85003**
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Lerche, I. (*with* Low, B. C.) On exact equilibrium states in external gravitational fields of heated, self-gravitating gas clouds cooling by conduction and radiation. **82b:85007**
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Pomraning, G. C. The criticality problem for an exponential atmosphere. **82j:85008**
Raymond, David J. *See* **Glaviano, Michael C., 82c:85002**
Rogovcov, N. N. Some boundary value problems and integral equations of convolution type encountered in radiation transfer theory. (Russian. English summary) **82b:85008**
Sharma, V. D. (*with* Shyam, Radhe; Menon, V. V.) Behaviour of finite amplitude waves in a radiating gas. (German and Russian summaries) **82m:85003**
Shyam, Radhe *See* **Sharma, V. D.; et al., 82m:85003**
Siewert, C. E. On computing eigenvalues in radiative transfer. **82c:85003**
On the equation of transfer relevant to the scattering of polarized light. **82g:85008**
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Simonneau, E. Transfert de rayonnement dans les atmosphères étendues. **82g:85009**
Stamnes, Knut (*with* Swanson, Roy A.) A new look at the discrete ordinate method for radiative transfer calculations in anisotropically scattering atmospheres. **82g:85010**
Swanson, Roy A. *See* **Stamnes, Knut, 82g:85010**

secondary classifications:

Box, Michael A. *See* **McKellar, Bruce H. J., (82k:86005)**
Fante, Ronald L. Relationship between radiative-transport theory and Maxwell's equations in dielectric media. **(82c:78005)**
Hegerfeldt, Gerhard C. (*with* Reibold, Reinhard) The asymptotic fall-off of a Stark-broadened spectral line in the classical path model. **(82d:82062)**
Janovickiĭ, E. G. Anisotropic light scattering in an inhomogeneous atmosphere. Asymptotic separation of angular variables in an optically thick layer. **(82i:78023)**
Kelley, C. T. Solution of *H*-equations by iteration. **(82j:45013)**
Liu, De Ming A Monte Carlo solution of a radiation transport equation. (Chinese. English summary) **(82m:65005)**
McCormick, N. J. (*with* Sanchez, R.) Inverse problem transport calculations for anisotropic scattering coefficients. **(82c:82110)**
McKellar, Bruce H. J. (*with* Box, Michael A.) The scaling group of the radiative transfer equation. **(82k:86005)**
Reibold, Reinhard *See* **Hegerfeldt, Gerhard C., (82d:82062)**
Rogovcov, N. N. Transport theory and the general invariance principle. (Russian. English summary) **(82f:82071)**
Sakabekov, A. Variational principles for a system of equations of the method of spherical harmonics in P_{2N+1}-approximation (RZ-geometry). (Russian. Kazakh summary) **(82k:49059)**
Sanchez, R. *See* **McCormick, N. J., (82c:82110)**
Sudarshan, E. C. G. Quantum theory of radiative transfer. **(82h:81164)**

85A30 Hydrodynamic and hydromagnetic problems [See also 76Y05.]

Čurilov, S. M. *See* **Poljačenko, V. L.; et al., 82c:85005**
Hunter, James H., Jr. (*with* Schweiker, Kevin S.) On the development of vorticity and waves in shearing media with preliminary application to the solar nebula. **82f:85002**
Jones, F. C. *See* **Völk, H. J.; et al., 82b:85009**
Lerche, I. (*with* Low, B. C.) On the equilibrium of heated self-gravitating masses: cooling by conduction. **82c:85004**
Low, B. C. *See* **Lerche, I., 82c:85004**
Morfill, G. E. *See* **Völk, H. J.; et al., 82b:85009**
Poljačenko, V. L. (*with* Čurilov, S. M.; Šuhman, I. G.) The nonlinear stage of gravitational instability in flat gaseous systems. (Russian) **82c:85005**
Prasanna, A. R. Plasma discs around black holes. **82g:85011**
Press, William H. (*with* Rybicki, George B.) Enhancement of passive diffusion and suppression of heat flux in a fluid with time-varying shear. **82h:85006**
Röser, S. *See* **Völk, H. J.; et al., 82b:85009**
Rybicki, George B. *See* **Press, William H., 82h:85006**
Schweiker, Kevin S. *See* **Hunter, James H., Jr., 82f:85002**
Šuhman, I. G. *See* **Poljačenko, V. L.; et al., 82c:85005**
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Barrow, John D. (*with* Silk, Joseph) The growth of anisotropic structures in a Friedmann universe. **(82m:83058)**
Blacher, S. (*with* Perdang, J.) Chaotic solar oscillations? **(82j:85002)**
Eriguchi, Yoshiharu (*with* Sugimoto, Daiichiro) Another equilibrium sequence of self-gravitating and rotating incompressible fluid. **(82i:76094)**
Evans, C. R. *See* **Fennelly, A. J., (82c:83043)**
Fennelly, A. J. (*with* Evans, C. R.) Magnetohydrodynamic perturbations of Robertson-Walker universes and of anisotropic Bianchi type-I universes. (Italian and Russian summaries) **(82c:83043)**
Malik, S. K. (*with* Singh, Manohar) Second harmonic resonance in a self-gravitating fluid column. **(82i:76009)**
Perdang, J. *See* **Blacher, S., (82j:85002)**
Silk, Joseph *See* **Barrow, John D., (82m:83058)**
Singh, Manohar *See* **Malik, S. K., (82i:76009)**
Sugimoto, Daiichiro *See* **Eriguchi, Yoshiharu, (82i:76094)**
Tsinganos, Kanaris C. Magnetohydrodynamic equilibrium. I. Exact solutions of the equations. **(82g:76047)**
Wesson, Paul S. Scale-invariant gravity: a reformulation and an astrophysical test. **(82h:83060)**

85A35 Statistical astronomy

Arnett, W. D. (*with* Lerche, I.) Pulsar statistics and their interpretations. **82d:85010**
Lerche, I. *See* **Arnett, W. D., 82d:85010**

secondary classifications:

Eichhorn, Heinrich (*with* Standish, E. Myles, Jr.) Remarks on nonstandard least-squares problems. **(82f:65012)**
Jefferys, William H. On the method of least squares. II. **(82f:65146)**
Standish, E. Myles, Jr. *See* **Eichhorn, Heinrich, (82f:65012)**

85A40 Cosmology {For relativistic cosmology, see 83F05.}

Davidson, W. (*with* McCrea, W. H.) Atomic and gravitational metrics in cosmology. **82j:85009**

Dolgov, A. D. (*with* Zel'dovič, Ja. B.) Cosmology and elementary particles. **82b:85010**
Field, George B. Galaxies and intergalactic matter. (*See* **82d:83002**)
Gerlach, Ulrich H. (*with* Sengupta, Uday K.) Homogeneous collapsing star: tensor and vector harmonics for matter and field asymmetries. **82i:85009**
Maldybaeva, È. Ja. Conditions for the stability of the accretion disc around a black hole. (Russian. English summary) **82m:85001b**
Malkov, E. A. *See* **Omarov, T. B., 82g:85012**
McCrea, W. H. *See* **Davidson, W., 82j:85009**
Omarov, T. B. (*with* Malkov, E. A.) On gravitating systems with a nonstationary distribution function. (Russian. English summary) **82g:85012**
Peton, A. Principe cosmologique, principe variationnel et théorie des groupes. (English summary) **82i:85008**
Sciama, Dennis W. Issues in cosmology. (*See* **82d:83002**)
Sengupta, Uday K. *See* **Gerlach, Ulrich H., 82i:85009**
de Vaucouleurs, Gerard On the extragalactic distance scale and the Hubble constant. (*See* **82d:83002**)
Zel'dovič, Ja. B. *See* **Dolgov, A. D., 82b:85010**

secondary classifications:

Berkovič, L. M. Gylden-Meščerskiĭ problem. **(82i:70008)**
Gott, J. Richard, III Chaotic cosmologies and the topology of the universe. **(82a:83058)**
de Groot, S. R. On relativistic kinetic theory of transport processes, in particular of neutrino systems. (French summary) **(82a:82052)**
Heidmann, Jean ★Relativistic cosmology. **(82g:83032)**
Isenberg, James A. Wheeler-Einstein-Mach spacetimes. **(82h:83007)**
Israel, Werner Thermodynamics of relativistic systems. (French summary) **(82f:83062)**
Liang, E. P. T. (*with* Sachs, R. K.) Cosmology. **(82i:83076)**
Lukaš, V. N. Production of phonons in an isotropic universe. **(82i:83077)**
(Mitton, Jacqueline) *See* **Heidmann, Jean, (82g:83032)**
(Mitton, Simon) *See* **Heidmann, Jean, (82g:83032)**
Narlikar, Jayant V. Cosmology in the post-Einstein era. (*See* **82d:83005**)
Rüdiger, Roland Time dependence of the cosmological redshift in Friedmann universes. **(82j:83072)**
Sachs, R. K. *See* **Liang, E. P. T., (82i:83076)**
Schendel, J. (*with* Winicour, Jeffrey) Restrictions on relativistically rotating fluids. **(82m:83029)**
Stuchlik, Z. Evolution of Kerr naked singularities. (Russian. English summary) **(82d:83070)**
Winicour, Jeffrey *See* **Schendel, J., (82m:83029)**
Yavuz, İ. Mittlere Materiedichte und räumliche Ausdehnung des Universums. (English and Turkish summaries) **(82e:83045)**

85A45 Radio astronomy

Boltjanskiĭ, V. G. Is the Sun a radiosphere? (Russian) **82d:85011**
Gleijeses, B. Points at mutual integral distances in S^n. **82h:85007**
Perlstadt, Marci Sampling schemes for Fourier transform reconstruction. **82m:85004**

85A99 Miscellaneous topics

Chapront, J. *See* **Chapront-Touzé, M., 82g:85013**
Chapront-Touzé, M. (*with* Chapront, J.) Les perturbations planétaires de la lune. Comparaison de ELP-1900 avec la solution de Brown. (English summary) **82g:85013**
Froeschlé, C. (*with* Scholl, H.) The stochasticity of peculiar orbits in the 2/1 Kirkwood gap. **82d:85012**
Goldreich, Peter (*with* Tremaine, Scott) The origin of the eccentricities of the rings of Uranus. **82c:85006**
Maeyama, Y. The length of the synodic months. The main historical problem of the lunar motion. **82h:85008**
Scholl, H. *See* **Froeschlé, C., 82d:85012**
Shirali, Satish Generalized solution of a nonlinear elliptic boundary value problem of astrophysics. **82h:85009**
Tremaine, Scott *See* **Goldreich, Peter, 82c:85006**

secondary classifications:

Avron, Joseph E. (*with* Simon, Barry) Almost periodic Hill's equation and the rings of Saturn. **(82d:58038)**
Boltjanskiĭ, V. G. Application of optimization methods to relativistic theory. (Russian. English summary) **(82k:83004)**
Evangelidis, E. A. Equilibrium of space plasma torus. **(82j:76090)**
Mikkola, S. Refraction in a piecewise polytropic atmosphere. **(82c:86005)**
Nedjalkov, I. P. On equations of the inverse problem of a geoelectrical field for homogeneous isotropic bodies in a constant current variant. (Russian) **(82i:86008)**
Simon, Barry *See* **Avron, Joseph E., (82d:58038)**

86–XX GEOPHYSICS [See also 73Nxx, 76U05, 76V05.]

86–01 Elementary exposition, textbooks

86–02 Advanced exposition (research surveys, monographs, etc.)

Bazaržapov, A. D. (*with* Matveev, M. I.; Mišin, V. M.) ★Геомагнитные вариации и бури. (Russian) [Geomagnetic variations and storms] **82h:86001**
Friedlander, Susan ★An introduction to the mathematical theory of geophysical fluid dynamics. **82g:86001**
Matveev, M. I. *See* **Bazaržapov, A. D.; et al., 82h:86001**
Mišin, V. M. *See* **Bazaržapov, A. D.; et al., 82h:86001**

secondary classifications:

(Lumley, John L.) *See* **Annual review of fluid mechanics, (82f:76001)**
(Van Dyke, Milton) *See* **Annual review of fluid mechanics, (82f:76001)**
(Wehausen, J. V.) *See* **Annual review of fluid mechanics, (82f:76001)**
Annual review of fluid mechanics ★Annual review of fluid mechanics. Vol. 13. **(82f:76001)**
Fluid mechanics ★Annual review of fluid mechanics. Vol. 13. **(82f:76001)**

86–03 Historical (must also be assigned at least one classification number from Section 01)

Hudson, J. A. Mathematics for seismology. **82d:86001**

secondary classifications:

(Bessel, Friedrich Wilhelm) *See* **Gauß, Carl Friedrich, (82j:01076)**
(Bos, H. J. M.) *See* **Studies on Christiaan Huygens, (82m:01036)**
Drake, Stillman History of science and tide theories. **(82j:01026)**
Eliassen, Arnt Vilhelm Bjerknes and his students. (*See* **82m:76001**)
Forbes, Eric G. ★Tobias Mayer (1723–62). **(82a:01032)**
Gauß, Carl Friedrich ★Werke. Ergänzungsreihe. Band I. (German) [Collected works. Supplementary series. Vol. I] **(82j:01076)**
See also **Kautzleben, H., (82g:01026)**
(Huygens, Christiaan) *See* **Shapiro, Alan E., (82g:01020)** *and* **Studies on Christiaan Huygens, (82m:01036)**
Kautzleben, H. Carl Friedrich Gauß und die Astronomie, Geodäsie und Geophysik seiner Zeit. **(82g:01026)**
(Mayer, Tobias) *See* **Forbes, Eric G., (82a:01032)**
(Newton, Isaac) *See* **Shapiro, Alan E., (82g:01020)**
(Rudwick, M. J. S.) *See* **Studies on Christiaan Huygens, (82m:01036)**
Shapiro, Alan E. Newton and Huygens' explanation of the 22° halo. **(82g:01020)**
(Snelders, H. A. M.) *See* **Studies on Christiaan Huygens, (82m:01036)**
(Visser, R. P. W.) *See* **Studies on Christiaan Huygens, (82m:01036)**
Amsterdam ★Studies on Christiaan Huygens. **(82m:01036)**
Bibliography:
Mayer, Tobias *See* **Forbes, Eric G., (82a:01032)**
Biography:
Mayer, Tobias *See* **Forbes, Eric G., (82a:01032)**
Correspondence:
Gauss, Carl Friedrich–Bessel, Friedrich Wilhelm *See* **Gauß, Carl Friedrich, (82j:01076)**
Studies on Christiaan Huygens ★Studies on Christiaan Huygens. **(82m:01036)**
Symposium:
Life and Work of Christiaan Huygens ★Studies on Christiaan Huygens. **(82m:01036)**

86–04 Explicit machine computation and programs (not the theory of computation or programming)

86–05 Experimental papers

86–06 Proceedings, conferences, etc.

(Hubeny, Karl) *See* **Festschrift: Hubeny, Karl, 82k:86001**
(Lloyd, Emlyn H.) *See* **Mathematics of hydrology and water resources, 82k:86001**
(O'Donnell, Terence) *See* **Mathematics of hydrology and water resources, 82k:86001**
(Petrašen', G. I.) *See* **Questions in the dynamical theory of seismic wave propagation, 82k:86002**
(Rinner, K.) *See* **Festschrift: Hubeny, Karl, 82b:86001**
(Wilkinson, John Craven) *See* **Mathematics of hydrology and water resources, 82k:86001**
Conference:
Mathematics of Hydrology and Water Resources ★The mathematics of hydrology and water resources. **82k:86001**
Festschrift:
Hubeny, Karl ★Festschrift zur Emeritierung von Karl Hubeny. (German) [Festschrift on the retirement of Karl Hubeny] **82b:86001**
Hydrology ★The mathematics of hydrology and water resources. **82k:86001**
Lancaster ★The mathematics of hydrology and water resources. **82k:86001**
Mathematics of hydrology and water resources ★The mathematics of hydrology and water resources. **82k:86001**
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secondary classifications:

Freiberg ★Die moderne Potentialtheorie als Grundlage des inversen Problems in der Geophysik. (German) [Modern potential theory as a foundation for the inverse problem in geophysics] **(82g:31001)**
Geophysics ★Die moderne Potentialtheorie als Grundlage des inversen Problems in der Geophysik. (German) [Modern potential theory as a foundation for the inverse problem in geophysics] **(82g:31001)**
Modern potential theory as a foundation for the inverse problem in geophysics ★Die moderne Potentialtheorie als Grundlage des inversen Problems in der Geophysik. (German) [Modern potential theory as a foundation for the inverse problem in geophysics] **(82g:31001)**
Summer School:
Modern Potential Theory as a Foundation for the Inverse Problem in Geophysics ★Die moderne Potentialtheorie als Grundlage des inversen Problems in der Geophysik. (German) [Modern potential theory as a foundation for the inverse problem in geophysics] **(82g:31001)**

86A04 General

86A05 Hydrology, hydrography, oceanography [See also 76B15, 76B20, 76B25, 76C15, 76E20, 76Q05, 76Rxx, 76U05.]

Amorocho, J. Spatially distributed variables in hydrologic modelling. (*See* **82k:86001**)

Anderson, M. G. (*with* Richards, K. S.) Statistical modelling of channel form and process. (*See* **82f:90003**)

Beljaev, V. S. (*with* Ozmidov, R. V.) A model of vertical turbulent exchange in the ocean at intermittent turbulence. (Russian) **82h:86002**

Bennett, A. F. (*with* Kloeden, P. E.) Viscous motion in an oceanic circulation model. **82i:86001**

Bobyleva, I. M. *See* **Marčuk, G. I.; et al., 82f:86001**

Bubnov, M. A. *See* **Marčuk, G. I.; et al., 82e:86002** *and* **82f:86002**

Chehil, Dalip S. *See* **Rahman, Matiur, 82d:86003**

Clarke, Robin T. Multivariate synthetic hydrology: a theoretical viewpoint. (*See* **82k:86001**)

Cvetova, E. A. *See* **Marčuk, G. I.; et al., 82e:86002**

Dooge, J. C. I. Deterministic input-output models. (*See* **82k:86001**)

Duff, G. F. D. A gulf and ocean model of the Bay of Fundy tides, and their response to barrier construction and operation. **82i:86002**

Dymnikov, V. P. *See* **Marčuk, G. I.; et al., 82f:86001**

Evans, D. V. Power from water waves. (*See* **82f:76001**)

Evtimov, S. N. (*with* Pančev, S.) An example of topographical solitary waves over a sinusoidal relief. (Russian) **82i:86003**

Ferguson, R. I. River meanders: regular or random? (*See* **82f:90003**)

Galin, V. Ja. *See* **Marčuk, G. I.; et al., 82f:86001**

Galligani, Ilio Optimal numerical methods for direct and inverse problems in hydrology. **82k:86003**

Harper, E. Y. Motion-induced singularities in power spectra associated with ocean gravity-wave fluctuations. **82c:86001**

Hipel, Keith William (*with* McLeod, Angus Ian) Perspectives in stochastic hydrology. **82g:86002**

Horikawa, Kiyoshi Coastal sediment processes. (*See* **82f:76001**)

Hua, Lien (*with* Thomasset, François) Numerical study of coastal upwellings by a finite element method. **82e:86001**

Kim, S. D. (*with* Lee, Y. J.; Shim, M. P.) Numerical experience from the computation of tidal waves by the finite element methods. (Korean. English summary) **82a:86001**

Klimok, V. I. *See* **Marčuk, G. I.; et al., 82e:86002**

Kloeden, P. E. *See* **Bennett, A. F., 82i:86001**

Kočergin, V. P. *See* **Marčuk, G. I.; et al., 82e:86002**

Kordzadze, A. A. *See* **Marčuk, G. I.; et al., 82e:86002**

Kuzin, V. I. *See* **Marčuk, G. I.; et al., 82e:86002**

Lee, Y. J. *See* **Kim, S. D.; et al., 82a:86001**

Leibovich, S. (*with* Paolucci, S.) The instability of the ocean to Langmuir circulations. **82d:86002**

Lin, Chia Chiao (*with* Roberts, William W., Jr.) Some fluid-dynamical problems in galaxies. (*See* **82f:76001**)

Lloyd, Emlyn H. Stochastic storage problems. (*See* **82k:86001**)

Lykosov, V. N. *See* **Marčuk, G. I.; et al., 82f:86001**

Marčuk, G. I. (*with* Kočergin, V. P.; Sarkisjan, A. S.; Bubnov, M. A.; Zalesnyĭ, V. B.; Klimok, V. I.; Kordzadze, A. A.; Kuzin, V. I.; Protasov, A. V.; Suhorukov, V. A.; Cvetova, E. A.; Ščerbakov, A. V.) ★Математические модели циркуляции в океане. (Russian) [Mathematical models of circulation in the ocean] **82e:86002**

(*with* Dymnikov, V. P.; Zalesnyĭ, V. B.; Lykosov, V. N.; Bobyleva, I. M.; Galin, V. Ja.; Perov, V. L.) A mathematical model of the general circulation of the atmosphere and ocean. (Russian) **82f:86001**

(*with* Bubnov, M. A.) On the asymptotic behavior of the solution of linear equations of the dynamics of a baroclinic ocean over long periods of time. **82f:86002**

McCreary, J. P. A linear stratified ocean model of the equatorial undercurrent. **82h:86002**

McLeod, Angus Ian *See* **Hipel, Keith William, 82g:86002**

Neuman, Shlomo P. An Eulerian-Lagrangian numerical scheme for the dispersion-convection equation using conjugate space-time grids. **82m:86001**

Ord, K. (*with* Rees, M.) Spatial processes: recent developments with applications to hydrology. (*See* **82k:86001**)

Ozmidov, R. V. *See* **Beljaev, V. S., 82b:86002**

Pančev, S. *See* **Evtimov, S. N., 82i:86003**

Paolucci, S. *See* **Leibovich, S., 82d:86002**

Perov, V. L. *See* **Marčuk, G. I.; et al., 82f:86001**

Protasov, A. V. *See* **Marčuk, G. I.; et al., 82e:86002**

Rahman, Matiur (*with* Chehil, Dalip S.) Salt concentration in tidal estuaries. **82d:86003**

Rees, M. *See* **Ord, K.**, (*See* **82k:86001**)

Renouard, Dominique Période des ondes internes engendrées dans un bassin fermé par un vent impulsionnel; écart par rapport à la période de Coriolis. Interprétation théorique. (English summary) [Period of internal waves generated in an ocean basin by a sudden strong wind; deviation with respect to Coriolis' period. Theoretical interpretation] **82k:86004**

Richards, K. S. *See* **Anderson, M. G.**, (*See* **82f:90003**)

Roberts, William W., Jr. *See* **Lin, Chia Chiao**, (*See* **82f:76001**)

Rydz, B. Stochastic storage problems: the water management background. (*See* **82k:86001**)

Sarkisjan, A. S. *See* **Marčuk, G. I.; et al., 82e:86002**

Ščerbakov, A. V. *See* **Marčuk, G. I.; et al., 82e:86002**

Shim, M. P. *See* **Kim, S. D.; et al., 82a:86001**

Suhorukov, V. A. *See* **Marčuk, G. I.; et al., 82e:86002**

Thomasset, François *See* **Hua, Lien, 82e:86001**

Wilkinson, John Craven Operational aspects of water resource problems. (*See* **82k:86001**)

Zalesnyĭ, V. B. *See* **Marčuk, G. I.; et al., 82e:86002** *and* **82f:86001**

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Avilov, K. V. (*with* Mal'cev, N. E.) Calculation of sound fields in the ocean by the parabolic equation method. **(82k:76056)**

Batteen, Mary L. (*with* Han, Y. J.) On the computational noise of finite-difference schemes used in ocean models. (Russian summary) **(82h:65089)**

Bennett, A. F. (*with* Kloeden, P. E.) The simplified quasigeostrophic equations: existence and uniqueness of strong solutions. **(82i:76022)**

Blennerhassett, P. J. On the generation of waves by wind. **(82i:76017)**

Boccotti, Paolo The indeterminacy of the probability of intervals between zeros of random time functions. (Italian. English summary) **(82g:60069)**

Brown, S. N. (*with* Rosen, A. S.; Maslowe, S. A.) The evolution of a quasisteady critical layer in a stratified viscous shear layer. **(82f:76014)**

Casulli, Vincenzo Numerical simulation of free-surface thermally influenced flows for nonhomogeneous fluids. **(82j:76074)**

Gabov, S. A. Completeness and the property of being a basis for a system of eigenfunctions of a problem occurring in the theory of tidal oscillations. (Russian) **(82a:35082)**

Guščin, V. A. The splitting method for problems of the dynamics of an inhomogeneous viscous incompressible fluid. (Russian) **(82k:76027)**

Haines, C. R. A Wiener-Hopf approach to Kelvin wave generation by a semi-infinite barrier and a depth discontinuity. **(82j:76014)**

Han, Y. J. *See* **Batteen, Mary L., (82h:65089)**

Harris, C. J. River quality models near effluent outfalls. **(82a:76075)**

Kac, A. V. (*with* Spevak, I. S.) Reconstruction of the sea-wave spectra from the measurements of moving sensors. **(82f:76008)**

Kloeden, P. E. *See* **Bennett, A. F., (82i:76022)**

Lee, C. R. *See* **Lee, S. S.; et al., (82c:76015)**

Lee, Ding (*with* Preiser, Stanley) Generalized Adams methods for solving underwater wave propagation problems. **(82g:76030)**

Lee, S. S. (*with* Tuann, S. Y.; Sengupta, Subrata; Lee, C. R.) Application of three-dimensional, free-surface model to shallow tidal waters. **(82c:76015)**

Liu, K. C. Spatial stochastic systems theory and its application to fields and waves in random moving media. I. General theory. **(82m:93080)**

(Lloyd, Emlyn H.) *See* **Mathematics of hydrology and water resources, (82k:86001)**

Lloyd, Stuart P. Underwater sound from surface waves according to the Lighthill-Ribner theory. **(82d:76078)**

Mal'cev, N. E. *See* **Avilov, K. V., (82k:76056)**

Marriott, F. H. C. Diffusion and spatial pattern: a model for competition. (*See* **82f:90003**)

Maslowe, S. A. *See* **Brown, S. N.; et al., (82f:76014)**

(O'Donnell, Terence) *See* **Mathematics of hydrology and water resources, (82k:86001)**

Preiser, Stanley *See* **Lee, Ding, (82g:76030)**

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(Wilkinson, John Craven) *See* **Mathematics of hydrology and water resources, (82k:86001)**

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Bach, Charles L. *See* **Hanson, Morgan A.; et al., (82e:00013)**

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Barker, Lawrence E. *See* **Hanson, Morgan A.; et al., (82e:00013)**

Bobyleva, I. M. *See* **Marčuk, G. I.; et al., (82f:86001)**

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Kasahara, A. *See* **Browning, G.; et al., (82e:65125)**

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McWilliams, James C. (*with* Gent, Peter R.) Intermediate models of planetary circulations in the atmosphere and ocean. **(82h:86004)**

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Šeluhin, V. V. Periodic flows of a viscous gas. (Russian) **(82e:76046)**

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Watkins, David S. Determining initial values for stiff systems of ordinary differential equations. **(82c:65049)**

Zalesnyĭ, V. B. *See* **Marčuk, G. I.; et al., (82f:86001)**

Zeytounian, Radyadour Kh. Les équations de Navier-Stokes et l'atmosphère. I. Initiation. **(82h:86006)**

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86A60 Geological problems

Trofimov, A. A. ★Основы горной геометрии (геометрия недр). (Russian) [Foundations of mining geometry (geometry of mineral resources)] **82g:86019**

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Gendzwill, D. J. (*with* Stauffer, M. R.) Analysis of triaxial ellipsoids: their shapes, plane sections, and plane projections. **(82g:52001)**

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Stauffer, M. R. *See* **Gendzwill, D. J., (82g:52001)**

Stoyan, Dietrich Two stochastic models for spatial patterns of geological origin. (German and Russian summaries) **(82g:60024)**

Szczepankiewicz, Eugeniusz Some economic applications of isotropic and quasi-isotropic random fields. (Polish. English summary) **(82i:60102)**

86A99 Miscellaneous topics

Ahmad, Rashid A theoretical stochastic approach to oil and gas exploration. (Arabic summary) **82i:86011**

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Dumitriu, C. *See* **Dumitriu, M.; et al., 82c:86006**

Dumitriu, M. (*with* Dumitriu, C.; David, M.) Typological factor analysis: a new classification method applied to geology. **82c:86006**

Fowler, A. C. A theoretical treatment of the sliding of glaciers in the absence of cavitation. **82e:86008**

Geiser, James R. *See* **Gray, Norman H.; et al., 82c:86007**

Geiser, Peter A. *See* **Gray, Norman H.; et al., 82c:86007**

Goodchild, Michael F. Fractals and the accuracy of geographical measures. **82e:86009**

Gray, Norman H. (*with* Geiser, Peter A.; Geiser, James R.) On the least-squares fit of small and great circles to spherically projected orientation data. **82c:86007**

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Novikov, V. L. *See* **Mjasnikov, V. P.; et al., 82h:86007**

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Olunloyo, V. O. S. *See* **Hutter, K., 82c:86008**

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Slabinski, Victor J. A dynamical objection to the inversion of the Earth on its spin axis. **82i:86012**

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secondary classifications:

Anisimov, B. F. (*with* Nadirov, N. K.) Solution of the heat coagulation equation. (Russian. Kazakh summary) **(82h:80001)**

Blennerhassett, P. J. On the generation of waves by wind. **(82i:76017)**

Cohen, Jeffrey M. *See* **Pechenick, Kay R., (82i:78019)**

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Gabov, S. A. (*with* Svešnikov, A. G.; Šatov, A. K.) On the theory of steady waves on the surface of a spherical layer of a stratified liquid. (Russian) **(82f:76007)**

Grigor'ev, S. G. (*with* Kosolapov, V. N.; Pudovkin, M. A.; Čugunov, V. A.) Scheme of the generalized method of integral relations for multidimensional single-phase Stefan problems and its applications. (Russian) **(82f:65136)**

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Liu, De Fu *See* **Ma, Feng Shi, (82a:62037)**

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90-XX ECONOMICS, OPERATIONS RESEARCH, PROGRAMMING, GAMES

90-01 Elementary exposition, textbooks

Ermol'ev, Ju. M. (*with* Ljaško, Ĭ. Ĭ.; Mihalevič, V. S.; Tjuptja, V. I.) ★Математические методы исследования операций. (Russian) [Mathematical methods in operations research] **82e:90001**

Franklin, Joel N. ★Methods of mathematical economics. **82e:90002**

Khoury, Sarkis J. (*with* Parsons, Torrence D.) ★Mathematical methods in finance and economics. **82g:90001**

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Degtjarev, Ju. I. ★Методы оптимизации. (Russian) [Optimization methods] **(82f:90055)**
Egle, Kuno ★Elemente der Funktionalanalysis. (German) [Elements of functional analysis] **(82c:46001)**
Gass, Saul I. ★Programowanie liniowe. (Polish) [Linear programming] **(82c:90053)**
Hillier, Frederick S. (*with* Lieberman, Gerald J.) ★Introduction to operations research. **(82b:90040)**
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Ponstein, J. ★Approaches to the theory of optimization. **(82b:90071)**
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90–02 Advanced exposition (research surveys, monographs, etc.)

Bondareva, O. N. The development of game-theoretic methods of optimization in cooperative games and their application to multicriteria problems. (Russian) (*See* **82f:90002**)
Burkov, V. V. (*with* Kondrat'ev, V. V.) New directions in the theory of active systems. (Russian) (*See* **82f:90002**)
Butkovskiĭ, A. G. (*with* Gavrilov, M. A.; Krasnenker, A. S.; Poznjak, A. S.; Cypkin, Ja. Z.) Some problems in engineering cybernetics. (Russian) **82e:90003**
Cypkin, Ja. Z. *See* **Butkovskiĭ, A. G.; et al., 82e:90003**
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Ecker, J. G. Geometric programming: methods, computations and applications. **(82c:90078)**
Gill, Philip E. (*with* Murray, Walter; Saunders, Michael A.; Wright, Margaret H.) Methods for large-scale nonlinear optimization. **(82c:90079)**
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Mirman, Leonard J. One sector economic growth and uncertainty: a survey. **(82c:90005)**
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Sherif, Y. S. (*with* Smith, M. L.) Optimal maintenance models for systems subject to failure—a review. **(82c:90045)**
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Stancu-Minasian, I. M. Applications of the fractional programming. (French and Russian summaries) **(82k:90115)**
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90–03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Matulis, V. (*with* Pliuškevičius, R. A.; Tumasonis, V.) Some works of Lithuanian mathematicians on mathematical logic and programming. (Russian. Lithuanian and English summaries) **(82c:01042)**
Pliuškevičius, R. A. *See* **Matulis, V.; et al., (82c:01042)**
Prékopa, András On the development of optimization theory. (Hungarian. English summary) **(82c:01031)**
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90–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

(Bonniger, T.) *See* **Burkard, Rainer E.; et al., (82i:90073)**
Burkard, Rainer E. (*with* Derigs, Ulrich) ★Assignment and matching problems: solution methods with FORTRAN programs. **(82i:90073)**
Derigs, Ulrich *See* **Burkard, Rainer E., (82i:90073)**
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90–06 Proceedings, conferences, etc.

(Bensoussan, Alain) *See* **Applied stochastic control in econometrics and management science, 82a:90001**
(Breckner, Wolfgang W.) *See* **Proceedings: Colloquium on Operations Research, 82e:90005**
(Burkard, Rainer E.) *See* **Symposium: Operations Research, 82k:90002**
(Dabagjan, A. V.) *See* **Methods for optimization, identification and allocation of resources in complex systems, 82c:90002**
(Dwarakanath, M. H.) *See* **Electric power problems: the mathematical challenge, 82a:90004**
(Ellinger, Theodor) *See* **Symposium: Operations Research, 82k:90002**
(Eremin, I. I.) *See* **Methods of optimization and pattern recognition in problems of planning, 82e:90004**
(Erisman, Albert M.) *See* **Electric power problems: the mathematical challenge, 82a:90004**
(Gass, Saul I.) *See* **Operations research, 82j:90002**
(Goloskokov, E. G.) *See* **Methods for optimization, identification and allocation of resources in complex systems, 82c:90002**
(Gol'štein, E. G.) *See* **Mathematical methods for the solution of economic problems, 82d:90001**
(Henn, Rudolf) *See* **Meeting: Oberwolfach, Operations Research, 82a:90007**
(Hollingdale, S. H.) *See* **Mathematical aspects of marine traffic, 82a:90005**
(Jaiswal, N. K.) *See* **Scientific management of transport systems, 82i:90001**
(Janssen, J. M. L.) *See* **Models and decision making in national economies, 82m:90001**
(Kleindorfer, Paul) *See* **Applied stochastic control in econometrics and management science, 82a:90001**
(Klingman, Darwin) *See* **Network models and associated applications, 82j:90001**
(Künzi, Hans Paul) *See* **Meeting: Oberwolfach, Operations Research, 82a:90007**
(Lange, È. G.) *See* **Application of mathematical economics methods in national planning, 82c:90001**
(Lommatzsch, K.) *See* **Conference: Mathematical Methods in Economics, 82a:90002**
(Marușciac, Ioan) *See* **Proceedings: Colloquium on Operations Research, 82e:90005**
(Moiseev, N. N.) *See* **Current state of the theory of operations research, 82f:90002**
(Mulvey, J. M.) *See* **Network models and associated applications, 82j:90001**
(Nash, Peter) *See* **Systems modelling and optimization, 82m:90002**
(Neves, K. W.) *See* **Electric power problems: the mathematical challenge, 82a:90004**
(Pau, L. F.) *See* **Models and decision making in national economies, 82m:90001**
(Schubert, Horst) *See* **Meeting: Oberwolfach, Operations Research, 82a:90007**
(Šipulina, L. V.) *See* **Methods for optimization, identification and allocation of resources in complex systems, 82c:90002**
(Skarin, V. D.) *See* **Methods of optimization and pattern recognition in problems of planning, 82e:90004**
(Skowrónski, Janisław M.) *See* **Renewable resource management, 82k:90001**
(Šor, N. Z.) *See* **Mathematical methods of investigation and optimization of economic systems, 82h:90002**
(Stepanenko, E. N.) *See* **Stochastic methods in problems of optimization, 82d:90003**
(Stepanenko, I. D.) *See* **Application of mathematical economics methods in national planning, 82c:90001**
(Stognii, A. O.) *See* **Methods and practice of construction of data processing systems, 82a:90006**
(Straszak, A.) *See* **Models and decision making in national economies, 82m:90001**
(Tapiero, Charles S.) *See* **Applied stochastic control in econometrics and management science, 82a:90001**
(Vincent, Thomas L.) *See* **Renewable resource management, 82k:90001**
(Wrigley, Neil) *See* **Statistical applications in the spatial sciences, 82f:90003**
(Žukovin, V. E.) *See* **Theoretical cybernetics, 82f:90004**
Application of mathematical economics methods in national planning ★Применение экономико-математических методов в народном хозяйстве. (Russian) [Application of mathematical economics methods in national planning] **82c:90001**
Applied stochastic control in econometrics and management science ★Applied stochastic control in econometrics and management science. **82a:90001**
Bad Stuer ★Polyoptimierung—theoretische Grundlagen und Anwendungen. (German) [Polyoptimization—theoretical foundations and applications] **82d:90002**
Christchurch ★Renewable resource management. **82k:90001**
Cluj-Napoca ★Proceedings of the Third Colloquium on Operations Research. **82e:90005**
Colloquium:
Operations Research ★Proceedings of the Third Colloquium on Operations Research. **82e:90005**
Cologne ★V. Symposium on Operations Research. Part I. **82k:90002a**
★V. Symposium on Operations Research. Part II. **82k:90002b**
Complex systems ★Некоторые методы оптимизации, идентификации и распределения ресурсов в сложных системах. (Russian) [Some methods for optimization, identification and allocation of resources in complex systems] **82c:90002**
Conference:
Dynamic Modelling and Control of National Economies ★Models and decision making in national economies. **82m:90001**
Electric Power Problems: the Mathematical Challenge ★Electric power problems: the mathematical challenge. **82a:90004**
Mathematical Aspects of Marine Traffic ★Mathematical aspects of marine traffic. **82a:90005**

Conference: (*continued*)
Mathematical Methods in Economics ★6. Konferenz "Mathematische Methoden in der Ökonomie". (German) [Sixth Conference on Mathematical Methods in Economics] **82a:90002**
Oberwolfach, Operations Research ★IX. Oberwolfach Conference on Operations Research. **82a:90007**
Transportation ★Scientific management of transport systems. **82i:90001**
Control theory ★Renewable resource management. **82k:90001**
Current state of the theory of operations research ★Современное состояние теории исследования операций. (Russian) [Current state of the theory of operations research] **82f:90002**
Cybernetics ★Теоретическая кибернетика. (Russian) [Theoretical cybernetics] **82f:90004**
Data processing systems ★Методы и опыт построения систем обработки данных. (Russian) [Methods and practice of construction of data processing systems] **82a:90006**
Decision making processes and related fields ★Decision making processes and related fields. (Japanese) **82a:90003**
Duluth, Minn. ★Operations research. **82j:90002**
Econometrics ★Applied stochastic control in econometrics and management science. **82a:90001**
Economics ★6. Konferenz "Mathematische Methoden in der Ökonomie". (German) [Sixth Conference on Mathematical Methods in Economics] **82a:90002**
★Применение экономико-математических методов в народном хозяйстве. (Russian) [Application of mathematical economics methods in national planning] **82c:90001**
★Математические методы решения экономических задач. Сб. 9. (Russian) [Mathematical methods for the solution of economic problems. No. 9] **82d:90001**
Ekonom. i Mat. Metody (Supplement) ★Математические методы решения экономических задач. Сб. 9. (Russian) [Mathematical methods for the solution of economic problems. No. 9] **82d:90001**
Electric power problems: the mathematical challenge ★Electric power problems: the mathematical challenge. **82a:90004**
London ★Mathematical aspects of marine traffic. **82a:90005**
Management science ★Applied stochastic control in econometrics and management science. **82a:90001**
Marine traffic ★Mathematical aspects of marine traffic. **82a:90005**
Mathematical aspects of marine traffic ★Mathematical aspects of marine traffic. **82a:90005**
Mathematical methods of investigation and optimization of economic systems ★Математические методы исследования и оптимизации экономических систем. (Russian) [Mathematical methods of investigation and optimization of economic systems] **82h:90002**
Mathematical methods for the solution of economic problems ★Математические методы решения экономических задач. Сб. 9. (Russian) [Mathematical methods for the solution of economic problems. No. 9] **82d:90001**
Methods for optimization, identification and allocation of resources in complex systems ★Некоторые методы оптимизации, идентификации и распределения ресурсов в сложных системах. (Russian) [Some methods for optimization, identification and allocation of resources in complex systems] **82c:90002**
Methods of optimization and pattern recognition in problems of planning ★Методы оптимизации и распознавания образов в задачах планирования. (Russian) [Methods of optimization and pattern recognition in problems of planning] **82e:90004**
Methods and practice of construction of data processing systems ★Методы и опыт построения систем обработки данных. (Russian) [Methods and practice of construction of data processing systems] **82a:90006**
Meeting:
Oberwolfach, Operations Research ★IX. Oberwolfach Conference on Operations Research. **82a:90007**
Models and decision making in national economies ★Models and decision making in national economies. **82m:90001**
Network models and associated applications ★Network models and associated applications. **82j:90001**
New Delhi ★Scientific management of transport systems. **82i:90001**
Oberwolfach ★IX. Oberwolfach Conference on Operations Research. **82a:90007**
Operations research ★Proceedings of the Third Colloquium on Operations Research. **82e:90005**
★Современное состояние теории исследования операций. (Russian) [Current state of the theory of operations research] **82f:90002**
★IX. Oberwolfach Conference on Operations Research. **82a:90007**
★Operations research. **82j:90002**
Operations Research Verfahren ★IX. Oberwolfach Conference on Operations Research. **82a:90007**
Optimization ★Современное состояние теории исследования операций. (Russian) [Current state of the theory of operations research] **82f:90002**
★Некоторые методы оптимизации, идентификации и распределения ресурсов в сложных системах. (Russian) [Some methods for optimization, identification and allocation of resources in complex systems] **82c:90002**
★Стохастические методы в задачах оптимизации. (Russian) [Stochastic methods in problems of optimization] **82d:90003**
★Методы оптимизации и распознавания образов в задачах планирования. (Russian) [Methods of optimization and pattern recognition in problems of planning] **82e:90004**
Pattern recognition ★Методы оптимизации и распознавания образов в задачах планирования. (Russian) [Methods of optimization and pattern recognition in problems of planning] **82e:90004**
Polyoptimization—theoretical foundations and applications ★Polyoptimierung—theoretische Grundlagen und Anwendungen. (German) [Polyoptimization—theoretical foundations and applications] **82d:90002**
Proceedings:
Colloquium on Operations Research ★Proceedings of the Third Colloquium on Operations Research. **82e:90005**
Proceedings of Symposia in Applied Mathematics ★Operations research. **82j:90002**
Renewable resource management ★Renewable resource management. **82k:90001**
Scientific management of transport systems ★Scientific management of transport systems. **82i:90001**
Seattle, Wash. ★Electric power problems: the mathematical challenge. **82a:90004**
Seminar:
Polyoptimization ★Polyoptimierung—theoretische Grundlagen und Anwendungen. (German) [Polyoptimization—theoretical foundations and applications] **82d:90002**
Spatial sciences ★Statistical applications in the spatial sciences. **82f:90003**
Statistical applications in the spatial sciences ★Statistical applications in the spatial sciences. **82f:90003**
Stochastic methods in problems of optimization ★Стохастические методы в задачах оптимизации. (Russian) [Stochastic methods in problems of optimization] **82d:90003**
Symposium:
Decision Making Processes and Related Fields ★Decision making processes and related fields. (Japanese) **82a:90003**
Operations Research ★V. Symposium on Operations Research. Part I. **82k:90002a**
★V. Symposium on Operations Research. Part II. **82k:90002b**
Systems modelling and optimization ★Systems modelling and optimization. **82m:90002**
Theoretical cybernetics ★Теоретическая кибернетика. (Russian) [Theoretical cybernetics] **82f:90004**
Vienna ★Models and decision making in national economies. **82m:90001**
Vitte ★6. Konferenz "Mathematische Methoden in der Ökonomie". (German) [Sixth Conference on Mathematical Methods in Economics] **82a:90002**
Workshop:
Control Theory Applied to Renewable Resource Management and Ecology ★Renewable resource management. **82k:90001**

secondary classifications:

(Abramov, Ju. A.) *See* **Mathematical methods of optimization and structuring of systems, (82b:93004)**
(Auslender, Alfred) *See* **Optimization and optimal control, (82e:49004)**
(Baidosov, V. A.) *See* **Optimal control of systems with uncertain information, (82g:49002)**
(Bensoussan, Alain) *See* **Analysis and optimization of systems, (82b:49002)**
(Christofides, Nicos) *See* **Combinatorial optimization, (82a:90099)**
(Collatz, Lothar) *See* **Constructive methods of finite nonlinear optimization, (82g:49001)**
(Galkin, L. M.) *See* **Dynamics of ecological-economic systems, (82f:92002)**
(Greenberg, Harvey J.) *See* **Computer-assisted analysis and model simplification, (82g:00016)**
(Kontorin, V. V.) *See* **Dynamics of ecological-economic systems, (82f:92002)**
(Kosten, L.) *See* **Traffic and control, (82a:90059)**
(Lions, Jacques-Louis) *See* **Analysis and optimization of systems, (82b:49002)**
(Lucas, William F.) *See* **Game theory and its applications, (82j:90079)**
(Maybee, John S.) *See* **Computer-assisted analysis and model simplification, (82g:00016)**
(Meinardus, Günter) *See* **Constructive methods of finite nonlinear optimization, (82g:49001)**
(Mertens, Burkhard) *See* **Measurement, modeling and evaluation of computing systems, (82h:68002)**
(Mingozzi, Aristide) *See* **Combinatorial optimization, (82a:90099)**
(Moskalenko, A. I.) *See* **Dynamics of ecological-economic systems, (82f:92002)**
(Oettli, Karl Werner) *See* **Optimization and optimal control, (82e:49004)**
(Petrov, B. N.) *See* **Engineering cybernetics, (82d:93005)**
(Sandi, Claudio) *See* **Combinatorial optimization, (82a:90099)**
(Stoer, Josef) *See* **Optimization and optimal control, (82e:49004)**
(Subbotin, A. I.) *See* **Optimal control of systems with uncertain information, (82g:49002)**
(Toth, Paolo) *See* **Combinatorial optimization, (82a:90099)**
(Wetterling, Wolfgang) *See* **Constructive methods of finite nonlinear optimization, (82g:49001)**
Alexandria, Va. ★Environmetrics 81: selected papers. **(82k:62004)**
Analysis and optimization of systems ★Analysis and optimization of systems. **(82b:49002)**
Applied combinatorial theory and algorithms ★Applied combinatorial theory and algorithms. **(82g:05001)**
Biloxi, Miss. ★Game theory and its applications. **(82j:90079)**
Boulder, Colo. ★Computer-assisted analysis and model simplification. **(82g:00016)**
Combinatorial optimization ★Combinatorial optimization. **(82a:90099)**
Combinatorial theory ★Applied combinatorial theory and algorithms. **(82g:05001)**
Computer-assisted analysis and model simplification ★Computer-assisted analysis and model simplification. **(82g:00016)**
Computer science ★1979 International Symposium on Circuits and Systems. **(82e:94002)**
Conference:
Analysis and Optimization of Systems ★Analysis and optimization of systems. **(82b:49002)**
Environmetrics ★Environmetrics 81: selected papers. **(82k:62004)**
Gesellschaft für Informatik, Measurement, Modeling and Evaluation of Computing Systems ★Messung, Modellierung und Bewertung von Rechensystemen. (German) [Measurement, modeling and evaluation of computing systems] **(82h:68002)**
Optimization and Optimal Control ★Optimization and optimal control. **(82e:49004)**
Constructive methods of finite nonlinear optimization ★Konstruktive Methoden der finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**
Delft ★Traffic and control. **(82a:90059)**
Dynamics of ecological-economic systems ★Динамика эколого-экономических систем. (Russian) [Dynamics of ecological-economic systems] **(82f:92002)**
Ecological-economic systems ★Динамика эколого-экономических систем. (Russian) [Dynamics of ecological-economic systems] **(82f:92002)**
Engineering cybernetics ★Техническая кибернетика. Том 13. (Russian) [Engineering cybernetics. Vol. 13] **(82d:93005)**

Environmetrics 81: selected papers ★Environmetrics 81: selected papers. **(82k:62004)**
Game theory and its applications ★Game theory and its applications. **(82j:90079)**
IEEE Symposium:
Circuits and Systems ★1979 International Symposium on Circuits and Systems. **(82e:94002)**
Itogi Nauki i Tekniki ★Техническая кибернетика. Том 13. (Russian) [Engineering cybernetics. Vol. 13] **(82d:93005)**
Jülich ★Messung, Modellierung und Bewertung von Rechensystemen. (German) [Measurement, modeling and evaluation of computing systems] **(82h:68002)**
Mathematical methods of optimization and structuring of systems ★Математические методы оптимизации и структурирования систем. (Russian) [Mathematical methods of optimization and structuring of systems] **(82h:93004)**
Measurement, modeling and evaluation of computing systems ★Messung, Modellierung und Bewertung von Rechensystemen. (German) [Measurement, modeling and evaluation of computing systems] **(82h:68002)**
Meeting:
Constructive Methods of Finite Nonlinear Optimization ★Konstruktive Methoden der finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**
Messung, Modellierung und Bewertung von Rechensystemen ★Messung, Modellierung und Bewertung von Rechensystemen. (German) [Measurement, modeling and evaluation of computing systems] **(82h:68002)**
Oberwolfach ★Konstruktive Methoden der finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**
★Optimization and optimal control. **(82e:49004)**
Optimal control ★Optimization and optimal control. **(82e:49004)**
Optimal control of systems with uncertain information ★Оптимальное управление системами с неопределенной информацией. (Russian) [Optimal control of systems with uncertain information] **(82g:49002)**
Optimization ★Analysis and optimization of systems. **(82b:49002)**
★Математические методы оптимизации и структурирования систем. (Russian) [Mathematical methods of optimization and structuring of systems] **(82h:93004)**
★Konstruktive Methoden der finiten nichtlinearen Optimierung. (German) [Constructive methods of finite nonlinear optimization] **(82g:49001)**
Optimization and optimal control ★Optimization and optimal control. **(82e:49004)**
Proceedings of Symposia in Applied Mathematics ★Game theory and its applications. **(82j:90079)**
Summer School:
Combinatorial Optimization ★Combinatorial optimization. **(82a:90099)**
Symposium:
Applied Combinatorial Theory and Algorithms ★Applied combinatorial theory and algorithms. **(82g:05001)**
Computer-Assisted Analysis and Model Simplification ★Computer-assisted analysis and model simplification. **(82g:00016)**
Traffic and Control ★Traffic and control. **(82a:90059)**
Tokyo ★1979 International Symposium on Circuits and Systems. **(82e:94002)**
Traffic and control ★Traffic and control. **(82a:90059)**
Urbino ★Combinatorial optimization. **(82a:90099)**
Versailles ★Analysis and optimization of systems. **(82b:49002)**

90Axx Mathematical economics {For econometrics, see 62P20.}

(Barnett, William A.) *See* **Econometric modeling and policy design at the Federal Reserve, 82c:90003a** *and* **Econometric modeling and policy design at the Federal Reserve, 82c:90003b**
Marschak, Jacob ★Economic information, decision, and prediction. Selected essays. Vol. I. **82k:90003a**
★Economic information, decision, and prediction. Selected essays. Vol. II. **82k:90003b**
★Economic information, decision, and prediction. Selected essays. Vol. III. **82k:90003c**
Pau, L. F. Research on optimal control adapted to macro- and microeconomics: a survey. **82h:90003**
(Rjabuškin, T. V.) *See* **Statistical methods in control, 82k:90004**
Control ★Статистические методы в управлении. (Russian) [Statistical methods in control] **82k:90004**
Econometric modeling and policy design at the Federal Reserve ★Econometric modeling and policy design at the Federal Reserve. Part I. **82c:90003a**
★Econometric modeling and policy design at the Federal Reserve. Part II. **82c:90003b**
Economics ★Topology and economics. (Japanese) **82d:90004**
Statistical methods in control ★Статистические методы в управлении. (Russian) [Statistical methods in control] **82k:90004**
Symposium:
Topology and Economics ★Topology and economics. (Japanese) **82d:90004**
Topology and economics ★Topology and economics. (Japanese) **82d:90004**

secondary classifications:

Green, Jerry R. (*with* Scheinkman, José Alexandre) Introduction. **(82d:01027)**
Hoàng Tuy Fixed points, fair sharings and mathematical programming. **(82f:90056)**
(McKenzie, Lionel) *See* **Green, Jerry R.; et al., (82d:01027)**
Rapoport, Anatol ★Mathematische Methoden in den Sozialwissenschaften. (German) [Mathematical methods in the social sciences] **(82a:00016)**
Scheinkman, José Alexandre *See* **Green, Jerry R., (82d:01027)**

90A05 Decision theory [See also 62Cxx, 90B50, 90D35.]

Aizerman, M. A. (*with* Malishevskiĭ, A. V.) General theory of best variants choice: some aspects. **82i:90002**
Baecher, Gregory (*with* Gros, Jacques; McCusker, Karen) Methodologies for facility siting decisions. (*See* **82k:90009**)
Başar, Tamer Stochastic multicriteria decision problems with multilevels of hierarchy. **82f:90005**
Benedikt, Szvetlána Analysis of nonrepeatable decisions in cases involving risk. (Hungarian) **82f:90006**
Berezovskiĭ, B. A. (*with* Kempner, L. M.) Estimating the effect of criterion ranking information on the number of optimal options. **82i:90003**
Bordeckiĭ, A. B. Adaptation of decision-maker to structure of constraints in an interactive scheme for solving extremal parametric-synthesis problems. **82h:90004**
Boyd, I. E. *See* **Teo, K. L.; et al., 82f:90012**
Brams, Steven J. *See* **Fishburn, Peter C., 82b:90002**
Brockwehl, R. S. *See* **Friedman, S. B.; et al., 82g:90002**
Bunn, Derek W. (*with* Thomas, Howard) Problems in the application of decision analytic methods to policy formulation. (*See* **82k:90009**)
See also **Formal methods in policy formulation, 82k:90009**
Chatterjee, Kalyan Comparison of arbitration procedures: models with complete and incomplete information. **82d:90005**
Chen, Kan (*with* Jarboe, Kenan P.) Large scale decision tree optimization by branch and bound methods. **82e:90006**
Dewispelare, Aaron R. (*with* Sage, Andrew P.) On combined multiple objective optimization theory and multiple attribute utility theory for evaluation and choicemaking. **82f:90007**
Di Nola, Antonio (*with* Ventre, Aldo G. S.) Synthesis and decision by defuzzification. (French and Russian summaries) **82h:90007**
Eden, Benjamin Stochastic dominance without risk aversion. **82h:90005**
Federgruen, Awi (*with* Schweitzer, P. J.) Nonstationary Markov decision problems with converging parameters. **82f:90008**
Fishburn, Peter C. (*with* Brams, Steven J.) Expected utility and approval voting. **82b:90002**
French, Simon Consensus of opinion. **82h:90006**
Friedman, S. B. (*with* Harvey, A. E.; Brockwehl, R. S.) Decision analysis for environmental management: multiattributed alternatives with intangible costs and benefits. **82g:90002**
Gagliano, Ross A. (*with* Lebkowski, Krzysztof S.) Cybernetics and a general theory of organization. **82m:90003**
Gonzalez, Michel Choix certains et incertains: réexamen de l'axiome de choix de Luce pour une mesure des valeurs. (English summary) **82a:90008**
Gros, Jacques *See* **Baecher, Gregory; et al., (*See* 82k:90009)**
Halldén, Sören ★The foundations of decision logic. **82k:90005**
Harrison, P. J. *See* **Smith, J. Q.; et al., 82f:90011**
Harvey, A. E. *See* **Friedman, S. B.; et al., 82g:90002**
Holodkov, A. V. The problem of vector optimization with uniform equivalent criteria. (Russian) **82e:90007**
Hwang, Ching Lai (*with* Yoon, Kwangsun) ★Multiple attribute decision making. **82g:90003**
Jarboe, Kenan P. *See* **Chen, Kan, 82e:90006**
Johansen, Leif Parametric certainty equivalence procedures in decision-making under uncertainty. **82f:90009**
Kempner, L. M. *See* **Berezovskiĭ, B. A., 82i:90003**
Kijima, Kyoichi *See* **Takahara, Yasuhiko; et al., 82j:90003** *and* **82k:90008**
Klapka, Jindřich Mathematical tools for the decomposition of a system. (Czech. English summary) **82k:90006**
Klempous, Ryszard Generalized Weber's problem and its application. **82m:90004**
Langetieg, Terence C. A multivariate model of the term structure. **82d:90006**
Larichev, O. I. ★Наука и искусство принятия решений. (Russian) [The science and art of decision making] **82f:90010**
Lebkowski, Krzysztof S. *See* **Gagliano, Ross A., 82m:90003**
Levhari, David (*with* Mirman, Leonard J.; Zilcha, Itzhak) Capital accumulation under uncertainty. **82c:90004**
Malishevskiĭ, A. V. *See* **Aizerman, M. A., 82i:90002**
McCusker, Karen *See* **Baecher, Gregory; et al., (*See* 82k:90009)**
Mirman, Leonard J. One sector economic growth and uncertainty: a survey. **82c:90005**
See also **Levhari, David; et al., 82c:90004**
Moore, E. J. *See* **Teo, K. L.; et al., 82f:90012**
Nakano, Bumpei *See* **Takahara, Yasuhiko; et al., 82j:90003** *and* **82k:90008**
Nitzan, Shmuel (*with* Paroush, Jacob) The characterization of decisive weighted majority rules. **82k:90007**
Olding, R. *See* **Teo, K. L.; et al., 82f:90012**
Paroush, Jacob *See* **Nitzan, Shmuel, 82k:90007**
Payne, Anthony N. (*with* Polak, Elijah) An interactive rectangle elimination method for biobjective decision making. **82c:90006**
Polak, Elijah *See* **Payne, Anthony N., 82c:90006**
Sage, Andrew P. *See* **Dewispelare, Aaron R., 82f:90007**
Sakawa, Masatoshi Interactive multiobjective reliability design of a standby system by the sequential proxy optimization technique (SPOT). **82g:90004**
Sarin, Rakesh K. (*with* Winkler, Robert L.) Performance-based incentive plans. **82a:90009**
Schweitzer, P. J. *See* **Federgruen, Awi, 82f:90008**
Sengupta, Jati K. Linear allocation rules under uncertainty. **82g:90005**
Smith, J. Q. (*with* Harrison, P. J.; Zeeman, E. C.) The analysis of some discontinuous decision processes. **82f:90011**
Takahara, Yasuhiko (*with* Nakano, Bumpei; Kijima, Kyoichi) A unified theory of decision principles. **82k:90008**
(*with* Nakano, Bumpei; Kijima, Kyoichi) A structure of rational decision principles. **82j:90003**
Takatsu, Shinzo Decomposition of satisficing decision problems. **82a:90010**
Teo, K. L. (*with* Boyd, I. E.; Moore, E. J.; Olding, R.) Suboptimal decision making of a production firm. **82f:90012**

Thomas, Howard *See* **Bunn, Derek W., (*See* 82k:90009)** *and* **Formal methods in policy formulation, 82k:90009**
Ventre, Aldo G. S. *See* **Di Nola, Antonio, 82h:90007**
White, D. J. Optimality and efficiency. I. **82a:90011a**
Notes in decision theory: optimality and efficiency. II. **82a:90011b**
Wierzbicki, Andrzej P. A methodological guide to multiobjective optimization. **82c:90007**
Winkler, Robert L. *See* **Sarin, Rakesh K., 82a:90009**
Yoon, Kwangsun *See* **Hwang, Ching Lai, 82g:90003**
Zeeman, E. C. *See* **Smith, J. Q.; et al., 82f:90011**
Zilcha, Itzhak *See* **Levhari, David; et al., 82c:90004**
Zionts, Stanley A multiple criteria method for choosing among discrete alternatives. **82f:90013**
Formal methods in policy formulation ★Formal methods in policy formulation. **82k:90009**

secondary classifications:

(Albers, Wulf) *See* **Decisions in small groups, (82e:90130)**
Aleskerov, F. T. Interval choice of options and its decomposition. **(82k:90010)**
Bagchi, Arunabha (*with* Başar, Tamer) Team decision theory for linear continuous-time systems. **(82d:90145)**
(Bamberg, Günter) *See* **Decisions in small groups, (82e:90130)**
Başar, Tamer *See* **Bagchi, Arunabha, (82d:90145)**
Batchelder, William H. *See* **Lefebvre, Vladimir A., (82h:92001)**
Ben-Tal, Aharon Characterization of Pareto and lexicographic optimal solutions. **(82d:90094)**
Bitran, Gabriel R. (*with* Magnanti, T. L.) Duality based characterizations of efficient facets. **(82i:90105)**
Bowen, K. C. Decision-making models or decision-makers' models? **(82h:92057)**
Brumat, Carlo Logics and hypothetical precepts in the foundations of decision theory. **(82i:62014)**
Černavskiĭ, A. V. *See* **Zaharova, A. V., (82j:58028)**
Cohen, Guy Information exchange between independent stochastic systems. **(82i:93092a)**
DeGroot, Morris H. (*with* Kadane, Joseph B.) Optimal challenges for selection. **(82d:62022)**
Demokan, N. (*with* Land, A. H.) A parametric quadratic program to solve a class of bicriteria decision problems. **(82e:90077)**
Deng, Ju Long A study of fuzzy decision-making systems. (Chinese. English summary) **(82g:68082)**
Ėrenštein, R. H. *See* **Rastrigin, L. A., (82k:68056)**
Firchau, Volker ★Wert und maximaler Wert von Informationen für statistische Entscheidungsprobleme. (German) [Value and maximal value of information for statistical decision problems] **(82h:62189)**
Fishburn, Peter C. Subjective expected utility: a review of normative theories. **(82h:90016)**
Henry, Claude Critères simples pour la prise en compte du risque. (English summary) **(82f:62193)**
Hess, James (*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. II. Degraded communications with linear time-varying dynamics. **(82d:90147b)**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. III. Degraded intelligence and communications. **(82d:90147c)**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. I. Degraded communications. **(82d:90147a)**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. IV. Perfect intelligence and communications. **(82d:90147d)**
Howard, Ronald A. Comments on the origin and application of Markov decision processes. **(82e:01075)**
Kadane, Joseph B. *See* **DeGroot, Morris H., (82d:62022)**
Kagiwada, Harriet (*with* Kalaba, Robert; Spingarn, K.) Optimal tactics for close support operations. VI. Summary of numerical results. **(82d:90147f)**
See also **Hess, James; et al., (82d:90147a); (82d:90147b); (82d:90147c)** *and* **(82d:90147d)**
Kahneman, Daniel *See* **Tversky, Amos, (82c:92029)**
Kalaba, Robert (*with* Spingarn, K.; Tesfatsion, Leigh) Optimal strategies for C^3 problems. V. The incorporation of symmetrical rationality. **(82d:90147e)**
See also **Hess, James; et al., (82d:90147a); (82d:90147b); (82d:90147c); (82d:90147d)** *and* **Kagiwada, Harriet; et al., (82d:90147f)**
Kofler, Eduard (*with* Menges, Günter) The structuring of uncertainty and the Max $E_{\min}$-principle. **(82a:62016)**
Krivonogov, A. I. Certain types of certain inequalities in pattern recognition. (Russian) **(82g:68085)**
Land, A. H. *See* **Demokan, N., (82e:90077)**
Lefebvre, Vladimir A. (*with* Batchelder, William H.) The nature of Soviet mathematical psychology. **(82h:92001)**
Luce, R. Duncan Conjoint measurement. **(82c:92002)**
Magnanti, T. L. *See* **Bitran, Gabriel R., (82i:90105)**
Maiminas, E. Z. *See* **Vilkas, Èduardas, (82m:90188)**
Mazurov, Vl. D. The theory and applications of committee constructions. (Russian) **(82k:90111)**
Menges, Günter *See* **Kofler, Eduard, (82a:62016)**
Paxson, Thomas D., Jr. Decision theoretic epistemology. **(82k:03007)**
Ponomarenko, V. S. A method of solving continuous vector optimization problems with a large number of criteria. **(82e:90102)**
Rastrigin, L. A. (*with* Ėrenštein, R. H.) ★Метод коллективного распознавания. (Russian) [A method of collective pattern recognition] **(82k:68056)**
Sanchez, E. Medical diagnosis and composite fuzzy relations. **(82h:92008)**
(Selten, Reinhard) *See* **Decisions in small groups, (82e:90130)**
Šindelář, Jan Algorithmical complexity of some statistical decision processes. I, II. **(82c:68028)**
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Yager, Ronald R. An exponential model for optimal time allocation in decision making. **(82d:92036)**
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Sethi, Suresh P. (*with* Lehoczky, John P.) A comparison of the Itô and Stratonovich formulations of problems in finance. **82k:90028**
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Bereanu, Bernard Some numerical methods in stochastic linear programming under risk and uncertainty. (**82f:90071**)
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Harvey, Charles M. Stochastic programming models for decreasing risk aversion. (**82m:90125**)
Kahane, Yehuda The theory of insurance risk premiums—a re-examination in the light of recent developments in capital market theory. (**82a:62152**)
Lau, Lawrence J. Is the expected utility maximization hypothesis refutable by finite market data: the case of two observations. (**82e:90017**)
See also **Green, Jerry R.; et al.**, (**82b:90018**)
LeBlanc, Gérald (*with* van Moeseke, Paul) Portfolios with reserve coefficient. (**82b:90087**)
Lieb, E. B. *See* **Morse, J. N.**, (**82c:90089**)
Lucas, Robert E., Jr. Asset prices in an exchange economy. (**82h:90019**)
Meyer, Jack Mean-variance efficient sets and expected utility. (**82d:90022**)
van Moeseke, Paul *See* **LeBlanc, Gérald**, (**82b:90087**)
Morse, J. N. (*with* Lieb, E. B.) Flexibility and rigidity in multicriterion linear programming. (**82c:90089**)
Polemarchakis, Heraklis M. *See* **Green, Jerry R.; et al.**, (**82b:90018**)
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Thompson, Gerald L. Pareto optimal deterministic models for bid and offer auctions. (**82a:90029**)
West, Bruce J. The psychology of speculation: a simple model. (*See* **82g:92002**)

90A10 Utility theory

Afriat, S. N. ★Demand functions and the Slutsky matrix. **82h:90015**
Aghevli, B. B. (*with* Mehran, F.) Optimal grouping of income distribution data. **82b:90016**

Blackorby, Charles (*with* Diewert, W. E.) Expenditure functions, local duality, and second order approximations. **82m:90023**

Brooks, Robert E. (*with* Kalelkar, Ashok E.) Use of multidimensional utility functions in hazardous shipment decisions. (*See* **82h:90009**)

Camacho, A. Approaches to cardinal utility. **82e:90015**

Chipman, John S. The theory and application of trade utility functions. **82d:90020**

Cooper, Russel J. *See* **McLaren, Keith R., 82j:90012**

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Pastijn, Francis *See* **Hardy, Darel W., (***See* **82j:20120)**

Pazner, Elisha A. Individual rationality and the concept of social welfare. **(82b:90008)**

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Artus, Patrick (*with* Muet, Pierre-Alain) Un retour sur la comparaison des hypothèses "putty-putty" et "putty-clay" dans l'estimation des demandes effectives d'investissement. (English and Spanish summaries) (*See* **82e:90019**)

Bol, G. Three remarks on ray-homothetic production functions. **82k:90030**

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Cichocki, K. Application of augmented Lagrangians in dynamic planning models. **82j:90013**

Cohen-Skalli, Bernard (*with* Laskar, Daniel) Fonctions d'emploi à court terme et cycles de productivité: un essai de synthèse. (English and Spanish summaries) (*See* **82e:90019**)

Džaniašvili, M. A. Convergence of a process of iterative aggregation for the solution of a resource distribution problem. (Russian) **82k:90031**

Färe, Rolf Essential and limitational production factors. **82k:90032**

(*with* Lyon, Vern) The determinateness test and economic price indices. **82h:90021**

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Fedorenko, I. K. *See* **Jastremskiĭ, A. I., 82m:90028**

Gantz, Donald T. A strong turnpike theorem for a nonstationary von Neumann-Gale production model. **82j:90014**

Hénin, Pierre-Yves L'offre d'emploi industriel en longue période avec une technologie "putty-clay". (English and Spanish summaries) (*See* **82e:90019**)

Jastremskiĭ, A. I. (*with* Fedorenko, I. K.) Techaiques for solving and analyzing applied stochastic models in economics. **82m:90028**

Kleĭner, G. B. Neoclassical production functions and duality. (Russian) **82a:90027**

Laskar, Daniel *See* **Cohen-Skalli, Bernard,** (*See* **82e:90019**)

Lippman, Steven A. (*with* Winston, Wayne L.) Optimal control of price through restricted production. **82g:90017**

Łoś, Jerzy Generalizations around Samuelson's nonsubstitution theorem. (Russian summary) **82k:90033**

Luptáčik, Mikuláš An open input-output model with continuous substitution between primary factors as a problem of geometric programming. **82b:90022**

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Malgrange, Pierre Fonctions de production et de demande de facteurs: quelques contributions. (English and Spanish summaries) (*See* **82e:90019**)

Maurice, Joël (*with* Villa, Pierre) Fiscalité et choix de la technique de production vus à travers une réforme de l'assiette des charges sociales. (English and Spanish summaries) (*See* **82e:90019**)

Muet, Pierre-Alain *See* **Artus, Patrick,** (*See* **82e:90019**)

Schroth, P. Scalar-valued production functions on indivisible commodities. **82k:90034**

Seade, Jesus The stability of Cournot revisited. **82c:90017**

Seierstad, Atle The macroproduction function uniquely determines the capacity distribution of the micro units. **82m:90029**

Stanisz, Tadeusz Functions with some given partial elasticities. (Polish. Russian and English summaries) **82c:90018**

Vilares, Manuel José Fonctions de production à générations de capital: théorie et estimation. (English and Spanish summaries) (*See* **82e:90019**)

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Production functions and factor demand functions ★Fonctions de production et de demande de facteurs. (French) [Production functions and factor demand functions] **82e:90019**

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Cooper, Russel J. *See* **McLaren, Keith R., (82j:90012)**

Curkov, V. I. *See* **Vatel', I. A., (82g:90041)**

Hoel, Michael Resource extraction when a future substitute has an uncertain cost. **(82c:90025)**
Jefferson, T. R. (*with* Scott, C. H.) Duality for quasiconcave programs with explicit constraints. (German and Russian summaries) **(82j:90064)**
Mairesse, Jacques (*with* Pescheux, Jean-Michel) Fonction de production et mesure du capital: la robustesse des estimations. (English and Spanish summaries) (*See* **82e:90019**)
Mass, Nathaniel J. Destabilizing impacts of price and quantity adjustments to relative supply and demand. **(82b:90034)**
McLaren, Keith R. (*with* Cooper, Russel J.) Intertemporal duality: application to the theory of the firm. **(82j:90012)**
Pescheux, Jean-Michel *See* **Mairesse, Jacques**, (*See* **82e:90019**)
Scott, C. H. *See* **Jefferson, T. R.**, **(82j:90064)**
Shreve, Steven E. A note on optimal switching between two activities. **(82b:90120)**
Vatel', I. A. (*with* Curkov, V. I.) A two-level system with stochastic parameter constraints. **(82g:90041)**

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Abraham-Frois, Gilbert (*with* Berrebi, Edmond) ★Theory of value, prices and accumulation. **82g:90018**
Alkan, Ahmet U. Efficient programmes for polyhedral technologies are competitive. **82i:90010**
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Berrebi, Edmond *See* **Abraham-Frois, Gilbert**, **82g:90018**
Bhattacharya, P. K. (*with* Dietrich, J. Kimball; Heckerman, Donald G.; Myers, Donald E.) Variable wages and prices and the demand for capital with discrete and continuous adjustments. **82m:90030**
Brode, John On forecasting discontinuous, nonnormal stochastic processes. **82m:90031**
Castrucci, Plinio B. L. (*with* Garcia, José D. G.) Linear modelling and optimal control applied to an indexing process. **82b:90023**
Dietrich, J. Kimball *See* **Bhattacharya, P. K.; et al.**, **82m:90030**
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Gertler, Mark Imperfect price adjustment and the optimal assignment of monetary and fiscal policies. **82h:90018**
Graitson, D. On H. Hotelling's "Stability in competition" [Econom. J. **39** (1929), 41–57] again. **82d:90024**
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Heertje, A. (*with* Furth, D.) Price formation of heterogeneous oligopoly. **82b:90024**
(Kregel-Javaux, M. P.) *See* **Abraham-Frois, Gilbert; et al.**, **82g:90018**
Lucas, Robert E., Jr. Asset prices in an exchange economy. **82h:90019**
Martin, R. L. Subregional Phillips curves, inflationary expectations, and the intermarket relative wage structure: substance and methodology. (*See* **82f:90003**)
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Mas-Colell, Andreu Two propositions on the global univalence of systems of cost function. **82g:90019**
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(von Neumann, John) *See* **Abraham-Frois, Gilbert; et al.**, **82g:90018**
Pallaschke, Diethard On the existence of a representative household. **82b:90025**
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Rader, Trout Factor price equalization with more industries than factors. **82d:90025**
Roemer, John E. Innovation, rates of profit, and uniqueness of von Neumann prices. **82b:90026**
Roumasset, James (*with* Uy, Marilou) Piece rates, time rates, and teams: explaining patterns in the employment relation. **82b:90027**
Spivak, Avia Efficient allocations under a general transaction technology. **82e:90021**
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Wilde, Louis L. On the formal theory of inspection and evaluation in product markets. **82a:90030**

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Jaskold Gabszewicz, J. (*with* Thisse, Jacques) Entry (and exit) in a differentiated industry. (*See* **82e:90023**)
Rosenthal, Robert W. Games of perfect information, predatory pricing and the chain-store paradox. **(82m:90169)**
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Wenocur, Roberta S. (*with* Salant, Stephen W.) Recurrence of a modified random walk and its application to an economic model. **(82f:60162)**

90A14 Equilibrium theory

Anderson, Robert M. A market value approach to approximate equilibria. **82m:90033**
Balasko, Yves Économie et théorie des catastrophes. (English summary) **82j:90015**
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Bonin, John P. Employment policies for the multiperiod monopolist-monopsonist with implications for macroeconomic control. **82a:90031**
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Gorman, W. M. Comments on James Quirk's article: "Qualitative stability on matrices and economic theory: a survey article". (*See* **82g:00016**)
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Radner, Roy Collusive behavior in noncooperative epsilon-equilibria of oligopolies with long but finite lives. (*See* **82e:90023**)
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Wan, Yieh Hei On disequilibrium adjustment processes. **82d:90033**
Weddepohl, H. N. *See* **Ruys, P. H. M., 82b:90030**
Westcott, Mark *See* **Gates, D. J.; et al., 82m:90036**
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Hart, Sergiu Measure-based values of market games. (**82f:90108**)
Hathaway, Neville J. (*with* Murray, Ian W.; Rickard, John A.) The stability of Bishop's warfare strategy. (**82k:90132**)
Ito, Takatoshi A Filippov solution of a system of differential equations with discontinuous right-hand sides. (**82e:90028**)
Just, Richard E. *See* **Pope, Rulon D., (82g:90028**)
Keenan, Donald Further remarks on the global Newton method. (**82k:58015**)
Klee, Victor (*with* Ladner, Richard E.) Qualitative matrices: strong sign-solvability and weak satisfiability. (*See* **82g:00016**)
Ladner, Richard E. *See* **Klee, Victor,** (*See* **82g:00016**)
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90A16 Dynamic economic models

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Bailey, F. N. *See* **Findeisen, Władysław; et al., (82b:93001)**
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Beneš, Václav E. (*with* Shepp, L. A.; Witsenhausen, H. S.) Some solvable stochastic control problems. **(82a:93072)**
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Qualitative analysis of nonlinear quasimonotone dynamical systems described by functional-differential equations. **(82b:34100)**
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Stănciulescu, Fl. Optimization in conditions of uncertainty of large-scale systems with hierarchical structure and applications. (Romanian. English summary) **(82b:93005)**
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Tatjewski, Piotr *See* **Findeisen, Władysław; et al., (82b:93001)**
Thisse, Jacques (*with* Weiserbs, Daniel) Existence and uniqueness of an optimal control with an infinite horizon. **(82b:49002)**
Tokarev, V. V. *See* **Mihailov, A. G., (82m:93057)**
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Woodall, D. R. Dividing a cake fairly. **(82f:28006)**
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90A17 Multisectoral models

Boyer, Robert P. (*with* Petit, Pascal) L'estimation de fonctions d'emploi pour trois secteurs industriels dans six pays européens: leur stabilité après 1973. (English and Spanish summaries) (*See* **82e:90019**)
Fackler, James S. *See* **Stanhouse, Bryan E., 82b:90028**
Just, Richard E. *See* **Pope, Rulon D., 82g:90028**
Kaganovič, M. I. Convergence of trajectories of revised planning in a dynamic multisector model. (Russian. Estonian and English summaries) **82a:90037**
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(Randers, Jørgen) *See* **Elements of the system dynamics method, 82e:90030**
Stanhouse, Bryan E. (*with* Fackler, James S.) Stochastic macroeconomic control with nonidentical control intervals. **82b:90028**
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System dynamics ★Elements of the system dynamics method. **82e:90030**

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Aracil, Javier Structural stability of low-order system dynamics models. **(82k:58055)**
Curkov, V. I. ★Метод разложения в квадратичном и сепарабельном программировании. (Russian) [The decomposition method in quadratic and separable programming] **(82e:90073)**
Gasanov, I. I. (*with* Ragimov, Ju. S.) On a control problem in a two-level hierarchical system. (Russian) **(82k:90141)**
Ragimov, Ju. S. *See* **Gasanov, I. I., (82k:90141)**
Stringer, John Operational research and public policy. (*See* **82k:90009**)

90A19 Statistical models

(Anderson, Oliver D.) *See* **Forecasting public utilities, 82a:90040**
Bronsard, Camille (*with* Salvas-Bronsard, Lise) Sur les différentes formes structurelles engendrées par la théorie de la demande et leur utilisation en économétrie: systèmes direct, réciproque, mixte et système avec rationnement quantitatif. (English and Spanish summaries) **82d:90042**
Bunn, Derek W. Recursive estimation of the observation and process noise covariances in online Kalman filtering. **82a:90038**
Fox, Karl August ★Intermediate economic statistics. Vol. I. **82d:90043a**
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Kaul, Tej K. *See* **Fox, Karl August, 82d:90043b**

Laffont, Jean-Jacques *See* **Gouriéroux, Christian; et al., 82g:90029**

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Rosen, Harvey S. *See* **Small, Kenneth A., 82a:90039**

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(Sanyal, B. C.) *See* **Fox, Karl August, 82d:90043a**

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secondary classifications:

Alldredge, J. Richard *See* **Dunn, Mark R.; et al., (82c:86004)**

Beneš, Václav E. (*with* Shepp, L. A.; Witsenhausen, H. S.) Some solvable stochastic control problems. **(82a:93072)**

(Breeden, Douglas T.) *See* **Marsh, Terry, (82b:90013)**

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Sargent, Thomas J. *See* **Hansen, Lars Peter, (82c:62146)**

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(Wrigley, Neil) *See* **Statistical applications in the spatial sciences, (82f:90003)**

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90A20 Economic time series analysis [See also 62M10.]

Ashley, Richard (*with* Granger, C. W. J.; Schmalensee, R.) Advertising and aggregate consumption: an analysis of causality. **82b:90036**

Carvalho, José L. *See* **Nerlove, Marc; et al., 82g:90031**

Granger, C. W. J. *See* **Ashley, Richard; et al., 82b:90036**

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Montgomery, Douglas C. (*with* Weatherby, Ginner) Modeling and forecasting time series using transfer function and intervention methods. **82g:90030**

Nerlove, Marc (*with* Grether, David M.; Carvalho, José L.) ★Analysis of economic time series. **82g:90031**

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Abadie, J. (*with* Travers, D.) Une approche simplifiè de la mèthode de Box et Jenkins pour l'analyse et la prévision des sèries temporelles unidimensionnelles. I. (English summary) **(82b:62108)**

An, Hong Zhi (*with* Cheng, Ping) Asymptotic covariance of estimates of parameters for autoregressive models. (Chinese) **(82c:62116)**

Arndt, Gisela ★Planung und statistische Auswertung von Computersimulationen interdependenter Modelle mit verzögerten endogenen Variablen. (German) [Planning and statistical evaluation of computer simulations of interdependent models with delayed endogenous variables] **(82j:62077)**

Balestra, Pietro A note on the exact transformation associated with the first-order moving average process. **(82g:62119)**

Burdelski, Thomas ★Univariable Zeitreihenanalyse und kurzfristige Prognose. (German) [One-variable time series analysis and short term forecasting] **(82i:62001)**

Cheng, Ping *See* **An, Hong Zhi, (82c:62116)**

Fogel, Robert William Historiography and retrospective econometrics. (*See* **82g:92002**)

Geweke, John F. (*with* Singleton, Kenneth J.) Maximum likelihood "confirmatory" factor analysis of economic time series. **(82g:62123)**

Härke, Eckhard ★Fehlerkomponenten-Modelle und optimale Vorhersage aus kombinierten Zeitreihen- und Querschnittsdaten. (German) [Error-component models and optimal estimation for combined time series and cross section data] **(82b:62114)**

Indjehagopian, J.-P. Estimation récursive des paramètres d'un modèle de régression, variant au cours du temps. (English summary) **(82e:62145)**

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Mélard, Guy (*with* Kiehm, J.-L.) Spécification d'un modèle ARIMA évolutif: approche par décomposition. **(82g:62127)**

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90A30 Applications to problems of human society (air pollution, etc.)

Arnott, Richard J. Unpriced transport congestion. **82e:90031**

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Beddington, John (*with* Botkin, Daniel; Levin, Simon A.) Mathematical models and resource management. (*See* **82k:90001**)

Estimating the effect of krill harvesting on the Southern ocean ecosystem. (*See* **82k:90001**)

Botkin, Daniel *See* **Beddington, John; et al., (*See* 82k:90001)**

Botsford, Louis W. More realistic fishery models: cycles collapse and optimal policy. (*See* **82k:90001**)

Butterworth, D. S. (*with* Newman, G. G.) The application of modelling to southern African fisheries management. **82b:90037**

Clark, Colin W. Economic models of fishery management. (*See* **82k:90001**)

Colleter, Pierre (*with* Delebecque, François; Falgarone, François; Quadrat, Jean Pierre) Application of stochastic control methods to the management of energy production in New Caledonia. **82c:90023**

Comins, Hugh N. (*with* Trenbath, Brian R.) Subinjurious maintenance strategies for optimal control of nematodes. (*See* **82k:90001**)

Dabagjan, A. V. (*with* Zaruba, V. Ja.) A game-theoretic auction scheme with redistribution of limited resources. (Russian) (*See* **82c:90002**)

Delebecque, François *See* **Colleter, Pierre; et al., 82c:90023**

Derzko, N. A. (*with* Sethi, Suresh P.) Optimal exploration and consumption of a natural resource—deterministic case. **82b:90038**

Dupačová, Jitka Water resources system modelling using stochastic programming with recourse. **82d:90045**

Falgarone, François *See* **Colleter, Pierre; et al., 82c:90023**

(Forrester, Jay W.) *See* **System dynamics, 82j:90021**

Gatrell, A. C. The autocorrelation structure of central-place populations in southern Germany. (*See* **82f:90003**)

Getz, Wayne M. Harvesting models and stock recruitment curves in fisheries management. **82b:90039**

Goh, B. S. Modelling and management of fish populations with high and low fecundities. (*See* **82k:90001**)

Gorelyi, A. V. Use of game-theoretic methods for problems of planning the development of transport. (Russian) (*See* **82c:90002**)

Hepple, L. W. Regional dynamics in British unemployment, and the impact of structural change. (*See* **82f:90003**)

(Legasto, Augusto A., Jr.) *See* **System dynamics, 82j:90021**

Levin, Simon A. *See* **Beddington, John; et al., (*See* 82k:90001)**

Luptáčik, Mikuláš (*with* Schubert, Uwe) Optimale Investitionspolitik unter Berücksichtigung der Umwelt: Eine Anwendung der Kontrolltheorie. **82d:90046**

(Lyneis, James M.) *See* **System dynamics, 82j:90021**
McMurtrie, R. A plant-water model with implications for the management of water catchments. (*See* **82k:90001**)
Mikula, Gerold Aufteilungsentscheidungen und Gerechtigkeit: Ergebnisse eines Forschungsprojekts. (English summary) (*See* **82e:90130**)
Murthy, H. S. K. *See* **Oliva, Terence A.; et al., 82d:90047**
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Okuda, Tetsuji Applications of the fuzzy integral evaluation model to brand selection problems. (Japanese. English summary) **82e:90032**
Oliva, Terence A. (*with* Peters, Michael H.; Murthy, H. S. K.) A preliminary empirical test of a cusp catastrophe model in the social sciences. **82d:90047**
Openshaw, S. (*with* Taylor, P. J.) A million or so correlation coefficients: three experiments on the modifiable areal unit problem. (*See* **82f:90003**)
Peters, Michael H. *See* **Oliva, Terence A.; et al., 82d:90047**
Pulliam, H. R. Optimal management of optimal foragers. (*See* **82k:90001**)
Putterill, Martin S. Appraisal of the commercial potential of the New Zealand deepwater fishery. (*See* **82k:90001**)
Quadrat, Jean Pierre *See* **Colleter, Pierre; et al., 82c:90023**
Razmadze, S. A. Optimization of the longitudinal profile of a span of a subway tunnel route without special constraints. (Russian) **82a:90041**
Roberts, Kevin (*with* Weitzman, Martin L.) Funding criteria for research, development, and exploration projects. **82h:90029**
Rose, C. W. Mathematical modelling of the transport and loss of leachable plant nutrients in field soils. (*See* **82k:90001**)
Schubert, Uwe *See* **Luptáčik, Mikuláš, 82d:90046**
Sethi, Suresh P. *See* **Derzko, N. A., 82b:90038**
Skowrónski, Janisław M. Adaptive identification of models stabilizing under uncertainty. (*See* **82k:90001**)
Stringer, John Operational research and public policy. (*See* **82k:90009**)
Taylor, P. J. *See* **Openshaw, S., (*See* 82f:90003)**
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System dynamics ★System dynamics. **82j:90021**

secondary classifications:

Adachi, Norihiko *See* **Takeuchi, Yasuhiro, (82c:34063)**
Ames, W. F. (*with* Falco, J.; Lohner, R.) Mathematical analysis of models for pollutant transport and dissipation. **(82b:80019)**
Bachem, A. (*with* Simon, H.) A product positioning model with costs and prices. **(82h:90008)**
Beklarjan, A. A. A maximum principle in the solution of optimal harvesting problems. (Russian) **(82h:92031)**
Black, R. Michael (*with* Smith, Donald R.) The finite topology and variational calculus on nontopological vector spaces. **(82f:49034)**
Brauer, Fred (*with* Soudack, A. C.) Constant-rate harvesting and stocking in predator-prey systems. (*See* **82m:92003**)
Dirickx, Yvo M. I. (*with* Jennergren, L. Peter) ★Systems analysis by multilevel methods. **(82f:90059)**
Ecker, J. G. Geometric programming: methods, computations and applications. **(82c:90078)**
Erlander, Sven ★Optimal spatial interaction and the gravity model. **(82g:90068)**
Falco, J. *See* **Ames, W. F.; et al., (82b:80019)**
Frick, P. A. On Malthusian models of migration and population growth. **(82h:92030)**
Gurtin, Morton E. (*with* Murphy, Lea F.) On the optimal harvesting of age-structured populations. (*See* **82m:92003**)
Haag, G. *See* **Weidlich, W., (82m:92083)**
(Häfele, Wolf) *See* **Propoi, A. I.; et al., (82k:90043)**
Jennergren, L. Peter *See* **Dirickx, Yvo M. I., (82f:90059)**
Kapur, J. N. Optimal harvesting of age-structured density-dependent animal population models. **(82c:92021)**
Kirkwood, G. P. Allowing for risks in setting catch limits based on MSY. **(82h:92047)**
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Lippman, Steven A. (*with* McCall, John J.) The economics of belated information. **(82g:92059)**
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McCall, John J. *See* **Lippman, Steven A., (82g:92059)**
Mendelssohn, Roy Pareto optimal policies for harvesting with multiple objectives. **(82b:90119)**
Murphy, Lea F. *See* **Gurtin, Morton E., (*See* 82m:92003)**
Paul, S. K. (*with* Roy, Susanta) On an aspect of optimum exploitation of renewable resources: a competitive economy. **(82m:92064)**
Praetz, Peter D. Testing for a flat spectrum on efficient market price data. **(82c:62130)**
Propoi, A. I. (*with* Zimin, I. N.) ★Dynamic linear programming models of energy, resource, and economic-development systems. **(82k:90043)**
Roy, Susanta (*with* Sinha, D. K.) Mathematical modeling of harvesting on competitive system. **(82c:92027)**
See also **Paul, S. K., (82m:92064)**
Shepherd, J. G. Cautious management of marine resources. **(82h:92034)**
Simon, H. *See* **Bachem, A., (82h:90008)**
Sinha, D. K. *See* **Roy, Susanta, (82c:92027)**
Smith, Donald R. *See* **Black, R. Michael, (82f:49034)**
Soudack, A. C. *See* **Brauer, Fred, (*See* 82m:92003)**
Staroverov, O. V. ★Модели движения населения. (Russian) [Models of population movement] **(82j:92057)**
Takeuchi, Yasuhiro (*with* Adachi, Norihiko) Existence of stable equilibrium point for dynamical systems of Volterra type. **(82c:34063)**
Weidlich, W. (*with* Haag, G.) Migration behaviour of mixed population in a town. **(82m:92083)**
Zimin, I. N. *See* **Propoi, A. I., (82k:90043)**

90A99 None of the above, but in this section

Balakrishnan, V. K. Strategic market games: an overview. **82c:90024**
Banerjee, Asit K. (*with* Bhattacharyya, G. K.) Use of Bayesian analysis of semi-Markov process models to study consumer buying behavior. **82h:90030**
Bhattacharyya, G. K. *See* **Banerjee, Asit K., 82h:90030**
von Borries, Dietrich F. W. A "geometric" interpretation of the index formula of Siegel. **82m:90058**
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Chandra, Mahesh (*with* Singpurwalla, Nozer D.) Relationships between some notions which are common to reliability theory and economics. **82m:90059**
Dabagjan, A. V. (*with* Makarenko, A. V.) Application of a sequential dichotomy in the construction of an optimal standard size series of complexes of industrial plants. (Russian) (*See* **82c:90002**)
Dasgupta, Partha (*with* Stiglitz, Joseph) Resource depletion under technological uncertainty. **82f:90028**
Fei, John C. H. Equity oriented fiscal programs. **82h:90031**
Gale, David (*with* Sobel, Joel) On optimal distribution of output from a jointly owned resource. **82m:90060**
Hoel, Michael Resource extraction when a future substitute has an uncertain cost. **82c:90025**
Intriligator, Michael D. Interactions between economics and systems theory. **82g:90032**
Makarenko, A. V. *See* **Dabagjan, A. V., (*See* 82c:90002)**
Muet, Pierre-Alain *See* **Villa, Pierre; et al., (*See* 82e:90019)**
Nurmi, Hannu Modelling impreciseness in human systems. **82h:90032**
Pouchain, Michel Estimations de demande de facteurs en termes d'adjustements croisés. (English and Spanish summaries) (*See* **82e:90019**)
Sato, Kazuo The "natural" index and utility functions. **82m:90061**
Scholz, Roland W. Vergleich zweier Anspruchsniveau-Vorhersagemodelle mit der Gleichaufteilungsvorhersage in einer dyadischen Verhandlungssituation mit vollständiger Information. (English summary) (*See* **82e:90130**)
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Trivedi, P. K. Some discrete approximations to divisia integral indices. **82f:90029**
Villa, Pierre (*with* Muet, Pierre-Alain; Boutillier, Michel) Une estimation simultanée des demandes d'investissement et de travail. (English and Spanish summaries) (*See* **82e:90019**)
Weymark, John A. Generalized Gini inequality indices. **82g:90033**

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Berresford, Geoffrey C. The uniformity assumption in the birthday problem. **(82c:60001)**
(Bogdan, Radu J.) *See* **Biography: Lehrer, Keith, (82f:03008)**
Christofides, Nicos (*with* Hewins, Robin D.; Salkin, Gerald R.) Graph theoretic approaches to foreign exchange operations. (*See* **82a:90099**)
Easley, David (*with* Spulber, Daniel F.) Stochastic equilibrium and optimality with rolling plans. **(82f:90097)**
Hewins, Robin D. *See* **Christofides, Nicos; et al., (*See* 82a:90099)**
(Lehrer, Keith) *See* **Biography: Lehrer, Keith, (82f:03008)**
Maljukov, V. P. Conflict interaction of economic models. **(82h:90135)**
Myerson, Roger B. Optimal auction design. **(82m:90191)**
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Salkin, Gerald R. *See* **Christofides, Nicos; et al., (*See* 82a:90099)**
Smith, David P. The problem of persistence in economic-demographic cycles. **(82m:92065)**
Spulber, Daniel F. *See* **Easley, David, (82f:90097)**
Szczepankiewicz, Eugeniusz Some economic applications of isotropic and quasi-isotropic random fields. (Polish. English summary) **(82i:60102)**
Biography:
Lehrer, Keith ★Keith Lehrer. **(82f:03008)**

90Bxx Operations research and management science

Beale, E. M. L. The Blackett Memorial Lecture 1980. Operational research and computers: a personal view. **82a:90042**
Conolly, Brian ★Techniques in operational research. Vol. 2. **82m:90062**
Cuninghame-Green, Raymond ★Minimax algebra. **82a:90043**
(Halmos, F.) *See* **Optimization of design and computation of control networks, 82c:90026**
Hillier, Frederick S. (*with* Lieberman, Gerald J.) ★Introduction to operations research. **82b:90040**
Kalašnikov, V. V. ★Качественный анализ поведения сложных систем методом пробных функций. (Russian) [Qualitative analysis of the behavior of complex systems by the method of test functions] **82b:90041**
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secondary classifications:

Fujishige, Satoru *See* **Iri, Masao, (82a:05039)**

Gondran, Michel (*with* Minoux, Michel) ★Graphes et algorithmes. (French) [Graphs and algorithms] **(82g:68059)**

Iri, Masao (*with* Fujishige, Satoru) Use of matroid theory in operations research, circuits and systems theory. **(82a:05039)**

Minoux, Michel *See* **Gondran, Michel, (82g:68059)**

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Ventcel', E. S. ★Исследование операций. (Russian) [Operations research] **(82b:90001)**

Wu, Xue Mou Fuzziness, reliability and pansystems analysis. III. (Chinese) **(82g:94033a)**
Fuzziness, reliability and pansystems analysis. IV. (Chinese) **(82g:94033b)**

Data processing systems ★Методы и опыт построения систем обработки данных. (Russian) [Methods and practice of construction of data processing systems] **(82a:90006)**

Methods and practice of construction of data processing systems ★Методы и опыт построения систем обработки данных. (Russian) [Methods and practice of construction of data processing systems] **(82a:90006)**

90B05 Logistics, inventory, storage

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Artstein, Zvi (*with* Greenberg, Yosef) Exhaustion time in continuous allocation processes. **82g:90035**

Bartezzaghi, E. (*with* Colorni, A.; Palermo, P. C.) A search tree algorithm for plant location problems. **82h:90033**

Bensoussan, Alain (*with* Crouhy, Michel G.) Multilevel control systems for inventory management. **82e:90033**

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Boyce, D. E. A framework for constructing network equilibrium models of urban location. **82m:90063**

Brady, Stephen D. (*with* Rosenthal, Richard E.) Interactive computer graphical solutions of constrained minimax location problems. **82f:90030**

Brown, Donna J. An improved BL lower bound. **82a:90044**

Calamai, Paul (*with* Charalambous, Christakis) Solving multifacility location problems involving Euclidean distances. **82c:90027**
(*with* Conn, Andrew R.) A stable algorithm for solving the multifacility location problem involving Euclidean distances. **82i:90023**

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Chandrasekaran, R. (*with* Marcos, J. A. P. Pacca) Weighted min-max location problems: polynomially bounded algorithms. **82e:90034**
(*with* Daughety, A.) Location on tree networks: p-centre and n-dispersion problems. **82j:90022**

Charalambous, Christakis An iterative algorithm for the multifacility minimax location problem with Euclidean distances. **82g:90036**
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Doshi, Bharat T. Adaptive control of a production-inventory system. **82c:90028**

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Dresher, Melvin (*with* Moglewer, Sidney) Statistical acceptance sampling in a competitive environment. **82d:90048**

Drezner, Zvi Bounds on the optimal location to the Weber problem under conditions of uncertainty. **82i:90026**
(*with* Wesolowsky, G. O.) A maximin location problem with maximum distance constraints. **82i:90025**
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Extension of the Luss-Gupta resource allocation algorithm by means of first order approximation techniques. **82i:90027**

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Erlenkotter, Donald A comparative study of approaches to dynamic location problems. **82i:90028**

Fisher, Marshall L. (*with* Jaikumar, Ramchandran) A generalized assignment heuristic for vehicle routing. **82f:90031**

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Golabi, Kamal An inventory model with search for best ordering price. **82c:90029**

Golodnikov, A. N. A numerical method of solving an inventory control problem under conditions of limited information on the distribution function of random demand. (Russian) **82c:90030**

Gonova, T. V. A static problem of control of stores of interchangeable products with random demand. (Russian) **82a:90046**

Graves, Stephen C. (*with* Keilson, Julian) The compensation method applied to a one-product production/inventory problem. **82i:90029**

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Hartley, Roger An existence and uniqueness theorem for an optimal inventory problem with forecasting. **82a:90047**

Ishii, Hiroaki (*with* Nose, Toyokazu; Shiode, Shōgo; Nishida, Toshio) Perishable inventory management subject to stochastic leadtime. **82k:90047**
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Jaikumar, Ramchandran *See* **Fisher, Marshall L., 82f:90031**

Janev, N. I. Solution of a simple plant location problem. (Russian) **82g:90037**

Juel, Henrik (*with* Love, Robert F.) On the dual of the linearly constrained multifacility location problem with arbitrary norms. **82k:90048**

Kalin, Dieter Programmes dynamiques et leur application à un modèle de stocks. (English summary) **82a:90048**

Karkazis, J. (*with* Boffey, T. B.) The multicommodity facilities location problem. **82h:90034**

Karmarkar, Uday S. The multiperiod multilocation inventory problem. **82h:90035**

Katz, I. Norman (*with* Cooper, Leon) Optimal location on a sphere. **82b:90043**
(*with* Cooper, Leon) Facility location in the presence of forbidden regions. I. Formulation and the case of Euclidean distance with one forbidden circle. **82j:90024**
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Kawahara, Iwao (*with* Nakai, Shigeyuki) An algorithm for locating facilities at the theoretical steps of layout planning. (Japanese. English summary) **82d:90050**

Keilson, Julian *See* **Graves, Stephen C., 82i:90029**

Kolen, Antoon Equivalence between the direct search approach and the cut approach to the rectilinear distance location problem. **82i:90030**

Kottas, John F. (*with* Lau, Hon Shiang) The use of versatile distribution families in some stochastic inventory calculations. **82c:90031**

Kruse, W. Karl Waiting time in a continuous review (s, S) inventory system with constant lead times. **82c:90032**

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Luss, Hanan A network flow approach for capacity expansion problems with two facility types. **82c:90033**

Magill, Michael J. P. On a class of variational problems arising in mathematical economics. **82j:90025**

Magnanti, T. L. Combinatorial optimization and vehicle fleet planning: perspectives and prospects. **82j:90026**

Mahoney, J. F. (*with* Sivazlian, B. D.) Computation of stock-outs in a multi-installation inventory system. **82f:90032**

Mak, K. L. Dynamics and control of integrated production-inventory-shipping systems. **82i:90031**

Marcos, J. A. P. Pacca *See* **Chandrasekaran, R., 82e:90034**

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(*with* Das, Ghanshiam; Singh, Mahabir; Singhal, M. L.) On $3\times n$ sequencing problem involving equivalent-job for a job-block with transportation-times of jobs. (German and Russian summaries) **82h:90065**
Martel, Charles U. *See* **Lawler, Eugene L., 82k:90064**
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Onaga, Kenji (*with* Tani, Katsuji; Chan, Shu Park) Modeling and scheduling of resource-sharing concurrent processes in networks of recurrent multiprograms and multi-PERTS. (*See* **82d:93001**)
Panwalkar, S. S. (*with* Smith, M. L.; Woollam, C. R.) Counterexamples to optimal permutation schedules for certain flow shop problems. **82f:90050**
Papadimitriou, Christos H. (*with* Kanellakis, Paris C.) Flowshop scheduling with limited temporary storage. **82a:90070**
Potts, C. N. Analysis of a heuristic for one machine sequencing with release dates and delivery times. **82h:90067**
Psaraftis, Harilaos N. A dynamic programming approach for sequencing groups of identical jobs. **82i:90062**
Puri, M. C. Extreme point enumeration technique for assignment problem. **82g:90061**
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Safonova, T. E. Minimization of the number of tasks not occurring in their directive intervals. (Russian) **82a:90071**
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Šahbazjan, K. V. (*with* Lebedinskaja, N. B.) Efficient optimization methods for establishing schedules for a single-machine (survey). (Russian) **82m:90092**
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Semenov, I. G. An algorithm for ordering tasks in a conveyor system on the criterion of the minimum passage time and with a fixed order of carrying them out on all machines. (Russian) **82f:90051**
Semesenko, M. P. (*with* Tihonov, Ju. L.) Modeling of periodically arriving tasks in a shared system. (Russian) **82a:90073**
Seshan, C. R. Some generalisations of the time-minimising assignment problem. **82g:90062**
Sevast'janov, S. V. Approximate solution of some problems of scheduling theory. (Russian) **82m:90093**
Sidney, Jeffrey B. The two-machine maximum flow time problem with series parallel precedence relations. **82i:90064**
A decomposition algorithm for sequencing with general precedence constraints. **82h:90068**
Siedersleben, J. Structural questions with GERT-networks. (German summary) **82g:90063**
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Sridhar, B. *See* **Teneketzis, D.; et al., 82d:90066**
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Sweeney, Dennis J. (*with* Murphy, Richard A.) Branch and bound methods for multi-item scheduling. **82i:90065**
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Teneketzis, D. (*with* Javid, H.; Sridhar, B.) Operations scheduling by Markov chains with strong and weak interactions. **82d:90066**
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(Timofeev, B. B.) *See* **Automation of the control of industrial plants, 82d:90069**
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Van der Heyden, Lado Scheduling jobs with exponential processing and arrival times on identical processors so as to minimize the expected makespan. **82f:90052**
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Vickson, R. G. Two single-machine sequencing problems involving controllable job processing times. **82g:90064**
Watson-Gandy, C. D. T. (*with* Foulds, L. R.) The vehicle scheduling problem: a survey. **82m:90094**
Weber, H. *See* **Ameling, W.; et al.,** (*See* **82k:68003**)
de Werra, D. Remarks on the requirement matrix of school timetable problems and regular embeddings of graphs. **82d:90067**
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Woollam, C. R. *See* **Panwalkar, S. S.; et al., 82f:90050**
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Automated systems for control of enterprises ★Автоматизированные системы управления предприятиями. (Russian) [Automated systems for control of enterprises] **82d:90068**
Automation of the control of industrial plants ★Автоматизация управления промышленными объектами. (Russian) [Automation of the control of industrial plants] **82d:90069**
Computer scheduling of public transport ★Computer scheduling of public transport. **82f:90053**
Leeds ★Computer scheduling of public transport. **82f:90053**
Public transport ★Computer scheduling of public transport. **82f:90053**
Workshop:
Computer Scheduling of Public Transport ★Computer scheduling of public transport. **82f:90053**

secondary classifications:

Achary, K. K. (*with* Seshan, C. R.) A time minimising transportation problem with quantity dependent time. **(82h:90044)**
Arató, Mátyás (*with* Benczúr, András) Dynamic placement of records and the classical occupancy problem. **(82h:68027)**
d'Atri, Gianfranco A note on heuristics for the traveling salesman problem. **(82d:90054)**
Benczúr, András *See* **Arató, Mátyás, (82h:68027)**
Burdjuk, V. Ja. (*with* Reva, V. N.) Method for optimizing functionals of permutations in the presence of constraints. **(82a:94112)**
Carmichael, N. (*with* Pritchard, A. J.) Optimal scheduling for the treatment of cancer. **(82d:92003)**
Casey, L. M. Decentralised scheduling. **(82i:68018)**
Foster, B. A. *See* **Ryan, D. M.,** (*See* **82f:90053**)
Gaul, Wolfgang Bounds for the expected duration of a stochastic project planning model. **(82d:90088)**
Gens, G. V. (*with* Levner, E. V.) Fast approximation algorithms for knapsack type problems. **(82a:65043)**
Gorskiĭ, V. E. (*with* Kičanov, M. V.) A simple strategy for the organization of parallel computations in a multicomputer hierarchical system with modular programming. **(82k:68013)**
Guldan, Filip Maximization of distances of regular polygons on a circle. (Slovak summary) **(82k:52015)**
Jaffe, Jeffrey M. Bounds on the scheduling of typed task systems. **(82a:68061)**
Karp, Richard M. (*with* Orlin, James B.) Parametric shortest path algorithms with an application to cyclic staffing. **(82d:90056)**
Kičanov, M. V. *See* **Gorskiĭ, V. E., (82k:68013)**
Kleinrock, Leonard (*with* Nilsson, Arne) On optimal scheduling algorithms for time-shared systems. **(82h:68032)**
Knox, E. G. Strategic planning models for rubella vaccination programmes. **(82k:92010)**
Korman, Samuel M. The graph-colouring problem. (*See* **82a:90099**)
Levin, Vitali I. Structural and logical method of combinatorial optimization with constraints. **(82h:90072)**
Qualitative analysis of the problem of combinatorial optimization by the method of logical determinants. **(82i:68025)**
Levner, E. V. *See* **Gens, G. V., (82a:65043)**

Magnanti, T. L. Combinatorial optimization and vehicle fleet planning: perspectives and prospects. **(82j:90026)**
Martel, Charles U. Multiprocessor scheduling with release times and deadlines. **(82d:68030)**
Merkel, Günter A moment method for solving stochastic time problems in network planning. (German and Russian summaries) **(82d:90058)**
Nash, Peter A generalized bandit problem. **(82b:62098)**
Nilsson, Arne *See* **Kleinrock, Leonard, (82b:68032)**
Okamura, Haruko (*with* Seymour, P. D.) Multicommodity flows in planar graphs. **(82j:90033)**
Orlin, James B. *See* **Karp, Richard M., (82d:90056)**
Perl, Yehoshua (*with* Yesha, Yaacov) Mean flow scheduling and optimal construction of a treelike communication network. **(82b:68036)**
Pitacco, Ermanno On a generalization of the traveling salesman problem. (Italian. English summary) **(82f:90034)**
Pritchard, A. J. *See* **Carmichael, N., (82d:92003)**
Reva, V. N. *See* **Burdjuk, V. Ja., (82a:94112)**
Ryan, D. M. (*with* Foster, B. A.) An integer programming approach to scheduling. (*See* **82f:90053**)
Scholz, K. On scheduling multiprocessor systems with algebraic objectives. (German summary) **(82g:68032)**
Seshan, C. R. *See* **Achary, K. K., (82h:90044)**
Seymour, P. D. *See* **Okamura, Haruko, (82j:90033)**
Słowiński, Roman L'ordonnancement des tâches préemptives sur les processeurs indépendants en présence de ressources supplémentaires. (English summary) [The scheduling of preemptive tasks on unrelated processors in the presence of additional resources] **(82m:68057)**
Snaksarev, A. M. Method of synthesis of structures of hierarchical multilevel systems. (Russian) **(82h:92054)**
Whittle, P. Multi-armed bandits and the Gittins index. **(82b:62097)**
Yesha, Yaacov *See* **Perl, Yehoshua, (82b:68036)**

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Agrell, Per Discrete search and estimation. **82k:90066**
Barnett, Arnold (*with* Mazzarino, John) On the sequential search for spatially-distributed events. **82h:90069**
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Brown, Scott Shorey Optimal search for a moving target in discrete time and space. **82c:90050**
Cepkov, A. S. (*with* Besedin, V. M.) Optimal search for a moving point. (Russian) **82j:90036**
Chelst, Kenneth R. A differential equation model of search for randomly arriving and departing targets. **82g:90065**
Corwin, Thomas L. On search for a Brownian target. **82a:90075**
Guseinov, T. R. *See* **Nasrullaev, N. N., 82m:90098**
Jian, Ji Sheng Some viewpoints on optimum search methods using orthogonal arrays. (Chinese) **82a:90076**
Kishi, Takashi (*with* Tatsuno, Kuniaki) Adaptive search and stop with uncertain sensor capability. (Japanese summary) **82m:90096**
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Mazzarino, John *See* **Barnett, Arnold, 82h:90069**
Nakai, Teruhisa Search problem with time-dependent detection probabilities. **82j:90037**
Nasrullaev, N. N. (*with* Guseĭnov, T. R.) A method for solving the problem of the identification of nonlinear static objects. (Russian. Azerbaijani and English summaries) **82m:90098**
Samoilenko, Stanislav I. (*with* Agajan, A. A.) Methods of search for solutions. (Russian) **82k:90067**
Schroeter, Gerhard The application of the Hankel transformation to spherically symmetric coverage problems. **82d:90070**
Tatsuno, Kuniaki *See* **Kishi, Takashi, 82m:90096**
Washburn, Alan R. Search-evasion game in a fixed region. **82i:90066**
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Some results on a discrete search problem. **82m:90099**
Optimal sequential search with discounted income. **82k:90069**
Wu, Cang Pu The optimal search for random objects. (Chinese) **82e:90049**

secondary classifications:

Gal, Shmuel ★Search games. **(82k:90146)**
Gupta, U. I. (*with* Lee, Der Tsai; Leung, Joseph Y.-T.; Pruitt, J. W.; Wong, C. K.) Record allocation for minimizing seek delay. **(82m:68136)**
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Leung, Joseph Y.-T. *See* **Gupta, U. I.; et al., (82m:68136)**
Maurer, Hermann A. (*with* Ottmann, Thomas) Dynamic solution of decomposable searching problems. **(82j:68049)**
Medvedev, V. S. *See* **Vereščagin, A. F.; et al., (82d:93014)**
Mockus, Jonas On Bayesian methods for seeking the extremal point. **(82c:90094)**
Ottmann, Thomas *See* **Maurer, Hermann A., (82j:68049)**
Overmars, Mark H. (*with* van Leeuwen, Jan) Some principles for dynamizing decomposable searching problems. **(82c:68063)**
Pruitt, J. W. *See* **Gupta, U. I.; et al., (82m:68136)**
Puzanov, V. P. *See* **Vereščagin, A. F.; et al., (82d:93014)**
Tošić, Ratko An optimal search procedure. **(82h:62131)**
Vereščagin, A. F. (*with* Medvedev, V. S.; Puzanov, V. P.) Algorithms for optimizing the trajectories of motion in the case of controllable search for objects. **(82d:93014)**
Wong, C. K. *See* **Gupta, U. I.; et al., (82m:68136)**

90B50 Decision theory, including multiple objectives [See also 90A05, 90C31, 90D35.]

Kurženskiĭ, A. B. Dynamic problems of decision making under conditions of uncertainty. (Russian) (*See* **82f:90002**)

secondary classifications:

Bezdek, James C. *See* **Fordon, Wilfred A., (82k:92009)**
Fordon, Wilfred A. (*with* Bezdek, James C.) The application of fuzzy set theory to medical diagnosis. **(82k:92009)**

90B99 None of the above, but in this section

Balachandran, Bala V. (*with* Jain, Suresh K.) A mathematical programming model for optimal service selection in the airline industry. **82j:90038**
Baženov, V. V. Problems of control of localization of processes of propagation in a plane. **82k:90070**
Bonder, Seth Mathematical modeling of military conflict situtations. **82m:90100**
Butorin, A. E. *See* **Kotjukov, V. I., 82a:90078**
Castaing, Charles Quelques résultats fondamentaux d'analyse convexe et ses applications. **82b:90070**
Christofides, Nicos (*with* Mingozzi, Aristide; Toth, Paolo) Loading problems. (*See* **82a:90099**)
Gero, John S. *See* **Oguntade, Olufemi O., 82h:90069**
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Inagaki, Toshiyuki (*with* Henley, Ernest J.) A systematic method for identifying structural differences between minimum-edge digraphs. **82d:90072**
Ioffe, L. Š. (*with* Kleĭner, G. B.; Sadovskiĭ, L. E.) Linear organizational systems. (Russian) **82d:90073**
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Johnson, Lawrence D. Expected number of attempts to achieve a binary objective. **82a:90077**
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Kotjukov, V. I. (*with* Butorin, A. E.) Synthesis of hierarchical multifactorial models and their adaptation. (Russian) **82a:90078**
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Nakai, Tōru Sequential stochastic assignment problem with rejection. **82d:90074**
Oguntade, Olufemi O. (*with* Gero, John S.) Evaluation of architectural design profiles using fuzzy sets. **82h:90069**
Rovinsky, Robert B. (*with* Shoemaker, Christine) Operations research: applications in agriculture. **82k:90071**
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Schroeter, Gerhard Expected coverage of a randomly located target by multiple independent salvos. **82i:90067**
Sethi, Suresh P. (*with* Lee, S. C.) Optimal advertising for the Nerlove-Arrow model under a replenishable budget. **82f:90054**
Shoemaker, Christine *See* **Rovinsky, Robert B., 82k:90071**
Toth, Paolo *See* **Christofides, Nicos; et al., (*See* 82a:90099)**
Zuckerman, Dror A diffusion process model for the optimal investment strategies of an R & D project. **82k:90072**

secondary classifications:

Adrabiński, Andrzej (*with* Grabowski, Józef; Wodecki, Mieczysław) An algorithm for solving the general sequencing problem. (Polish. English and Russian summaries) **(82c:68041)**
Bachem, A. (*with* Simon, H.) A product positioning model with costs and prices. **(82h:90008)**
Banerjee, Asit K. (*with* Bhattacharyya, G. K.) Use of Bayesian analysis of semi-Markov process models to study consumer buying behavior. **(82h:90030)**
Bartoszyński, Robert (*with* Govindarajulu, Z.) A note on the secretary problem. **(82a:60058)**
Bhattacharyya, G. K. *See* **Banerjee, Asit K., (82h:90030)**
Bonczek, Robert H. (*with* Holsapple, Clyde W.; Whinston, Andrew B.) A generalized decision support system using predicate calculus and network data base management. **(82m:68139)**
Coffman, Edward G., Jr. (*with* Garey, M. R.; Johnson, D. S.; Tarjan, Robert Endre) Performance bounds for level-oriented two-dimensional packing algorithms. **(82a:68068)**
Davies, G. S. Maintainable regions in a Markov manpower model. **(82i:60144)**
Derman, Cyrus (*with* Smith, Donald R.) An alternative proof of the IFRA property of some shock models. **(82c:60157)**
Dirickx, Yvo M. I. (*with* Jennergren, L. Peter) ★Systems analysis by multilevel methods. **(82f:90059)**
Dubois, Didier (*with* Prade, Henri M.) ★Fuzzy sets and systems. **(82c:03074)**
Freire, E. *See* **Ollero, A., (82e:92053)**
Garey, M. R. *See* **Coffman, Edward G., Jr.; et al., (82a:68068)**
Govindarajulu, Z. *See* **Bartoszyński, Robert, (82a:60058)**
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Holsapple, Clyde W. *See* **Bonczek, Robert H.; et al., (82m:68139)**
Jennergren, L. Peter *See* **Dirickx, Yvo M. I., (82f:90059)**
Johnson, D. S. *See* **Coffman, Edward G., Jr.; et al., (82a:68068)**
Koziarski, Andrzej Application of the stochastic subgradient method for long-term planning of the state of a dynamic plant operating in the presence of random disturbances. (Polish. Russian and English summaries) **(82h:90081)**
Lorenzen, Thomas J. Optimal stopping with sampling cost: the secretary problem. **(82g:60056)**

Lukasik, S. Optimale Steuerung in hierarchischen mehrkriteriellen Systemen unter den Bedingungen unvollständiger Information. **(82h:90087)**
Ollero, A. (*with* Freire, E.) The structure of relations in personnel management. **(82e:92053)**
Prade, Henri M. *See* **Dubois, Didier, (82c:03074)**
Simon, H. *See* **Bachem, A., (82h:90008)**
Smith, Donald R. *See* **Derman, Cyrus, (82c:60157)**
Tapiero, Charles S. (*with* Zuckerman, Dror) Optimum excess-loss reinsurance: a dynamic framework. **(82i:62151)**
Tarjan, Robert Endre *See* **Coffman, Edward G., Jr.; et al., (82a:68068)**
Whinston, Andrew B. *See* **Bonczek, Robert H.; et al., (82m:68139)**
Wodecki, Mieczysław *See* **Adrabiński, Andrzej; et al., (82c:68041)**
Yamada, Keigo Explicit formula of optimal replacement under additive shock processes. **(82c:60154)**
(Zadeh, Lotfi A.) *See* **Dubois, Didier; et al., (82c:03074)**
Zuckerman, Dror *See* **Tapiero, Charles S., (82i:62151)**

90Cxx Mathematical programming {For papers emphasizing calculus of variations or involving abstract spaces, see 49Dxx. For numerical methods, see 65K05.}

Beresnev, V. L. (*with* Gimadi, È. H.; Dement'ev, V. T.) Some models of taking optimal decisions in standardization. **82c:90051**
Degtjarev, Ju. I. ★Методы оптимизации. (Russian) [Optimization methods] **82f:90055**
Dement'ev, V. T. *See* **Beresnev, V. L.; et al., 82c:90051**
Gimadi, È. H. *See* **Beresnev, V. L.; et al., 82c:90051**
Hoàng Tuy Fixed points, fair sharings and mathematical programming. **82f:90056**
Huard, P. Synthèse et agrégation des méthodes en programmation mathématique. **82a:90079**
Karmanov, V. G. ★Математическое программирование. (Russian) [Mathematical programming] **82m:90101**
(Koševaja, V. A.) *See* **Methods of solution of problems of nonsmooth optimization and stochastic programming, 82c:90052**
Ponstein, J. ★Approaches to the theory of optimization. **82b:90071**
Rao, S. S. ★Optimization: theory and applications. **82e:90050**
(Sergiĕnko, Ī. V.) *See* **Computational aspects in applied program packages, 82f:90057**
Tind, Jørgen (*with* Wolsey, Laurence A.) An elementary survey of general duality theory in mathematical programming. **82j:90039**
(Tukalevs'ka, N. Ī.) *See* **Computational aspects in applied program packages, 82f:90057**
Wolsey, Laurence A. *See* **Tind, Jørgen, 82j:90039**
Computational aspects in applied program packages ★Вычислительные аспекты в пакетах прикладных программ. (Russian) [Computational aspects in applied program packages] **82f:90057**
Methods of solution of problems of nonsmooth optimization and stochastic programming ★Методы решения задач негладкой оптимизации и стохастического программирования. (Russian) [Methods of solution of problems of nonsmooth optimization and stochastic programming] **82c:90052**
Optimization ★Методы решения задач негладкой оптимизации и стохастического программирования. (Russian) [Methods of solution of problems of nonsmooth optimization and stochastic programming] **82c:90052**
Stochastic programming ★Методы решения задач негладкой оптимизации и стохастического программирования. (Russian) [Methods of solution of problems of nonsmooth optimization and stochastic programming] **82c:90052**

secondary classifications:

(Dixon, L. C. W.) *See* **Numerical optimisation of dynamic systems, (82a:49004)**
Ermol'ev, Ju. M. (*with* Ljaško, Ī. Ī.; Mihalēvič, V. S.; Tjuptja, V. I.) ★Математические методы исследования операций. (Russian) [Mathematical methods in operations research] **(82e:90001)**
Gondran, Michel (*with* Minoux, Michel) ★Graphes et algorithmes. (French) [Graphs and algorithms] **(82g:68059)**
Ljaško, Ī. Ī. *See* **Ermol'ev, Ju. M.; et al., (82e:90001)**
Matulis, V. (*with* Pliuškevičius, R. A.; Tumasonis, V.) Some works of Lithuanian mathematicians on mathematical logic and programming. (Russian. Lithuanian and English summaries) **(82c:01042)**
Mihalēvič, V. S. *See* **Ermol'ev, Ju. M.; et al., (82e:90001)**
Minoux, Michel *See* **Gondran, Michel, (82g:68059)**
Pliuškevičius, R. A. *See* **Matulis, V.; et al., (82c:01042)**
(Szegő, G. P.) *See* **Numerical optimisation of dynamic systems, (82a:49004)**
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Weintraub, Andrés (*with* Ingram, William) An efficient approach to some cases of coefficient variations in linear programs. **82i:90072**
Winkels, Heinz-Michael ★Die Bestimmung aller Lösungen eines linearen Restriktionssystems und Anwendungen. (German) [The determination of all solutions to a linear restriction system and applications] **82c:90056**
Winkler, C. Basis factorization for block-angular linear programs. **82a:90087**
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Young, R. D. Branch and Bound: an enumerative algorithm for integer programs. **82a:90088**

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Aspvall, Bengt (*with* Shiloach, Yossi) A polynomial time algorithm for solving systems of linear inequalities with two variables per inequality. (*See* **82a:68004**)
(*with* Shiloach, Yossi) A polynomial time algorithm for solving systems of linear inequalities with two variables per inequality. **(82a:68052)**
Atkočiūnas, Juozas (*with* Borkowski, Adam; König, Jan A.) Improved bounds for displacements at shakedown. **(82m:73063)**
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Billera, Louis J. (*with* Raanan, Joseph) Cores of nonatomic linear production games. **(82i:90125)**
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Hidden structure in linear programs. (*See* **82g:00016**)
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Brown, Gerald G. (*with* Wright, William G.) Automatic identification of embedded structure in large-scale optimization models. (*See* **82g:00016**)
Cooper, Leon (*with* Katz, I. Norman) The Weber problem revisited. **(82j:90023)**
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Dantzig, G. B. (*with* Sethi, Suresh P.) Linear optimal control problems and generalized linear programs. **(82g:49033)**
Demin, V. K. (*with* Osadčenko, A. A.) A form of decomposition for finite controllable Markov processes. **(82d:90125)**
Dempster, M. A. H. (*with* Papagaki-Papoulias, A.) Computational experience with an approximate method for the distribution problem. **(82b:65035)**
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Gallivan, S. (*with* Larman, D. G.) Further results on increasing paths in the one-skeleton of a convex body. **(82i:52007)**
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Glover, Fred Creating network structure in LP's. (*See* **82g:00016**)
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Murray, Walter *See* **Gill, Philip E.; et al., (82e:90079)**

Pesqueux, Yvon *See* **Chrétienne, Philippe; et al., (82a:90083)**

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Houck, David J., Jr. (*with* Picard, Jean-Claude; Queyranne, Maurice; Vemuganti, R. R.) The travelling salesman problem as a constrained shortest path problem: theory and computational experience. **(82h:90076)**

Hwang, F. K. An explicit expression for the cost of a class of Huffman trees. **(82c:05042)**

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Deák, István *See* **Prékopa, András; et al., (82d:90131)**
Director, Stephen W. *See* **Maly, W., (82d:94057)**
Dupačová, Jitka Water resources system modelling using stochastic programming with recourse. **(82d:90045)**
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Kaniovskaja, I. Ju. Convergence of random processes generated by a procedure of the stochastic approximation type. (Russian) **(82h:62137)**
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Kjellström, Gregor (*with* Taxén, Lars) Stochastic optimization in system design. **(82c:93094)**
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Lukasik, S. Optimale Steuerung in hierarchischen mehrkriteriellen Systemen unter den Bedingungen unvollständiger Information. **(82h:90087)**
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Başar, Tamer A trace minimization problem with applications in joint estimation and control under nonclassical information. **82d:90093**
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Nemirovskiĭ, A. S. (*with* Judin, D. B.) ★Сложность задач и эффективность методов оптимизации. (Russian) [Complexity of problems and effectiveness of methods of optimization] **82e:90081**
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Orbán, Gheorghe *See* **Breckner, Wolfgang W.**, (*See* **82e:90005**)
Osman, Mohamed Sayed Ali Qualitative analysis of basic notions in parametric convex programming with parameters in the objective function and in the constraints. **82a:90121**
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Protasi, M. *See* **Ausiello, G.; et al.**, **82f:90076**
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Rosenberg, Eric Globally convergent algorithms for convex programming. **82i:90089**
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Šmyrëv, V. I. On the problem of obtaining fixed points of piecewise constant monotone mappings in $\mathbb{R}^n$. (Russian) **82j:90060**
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Tiba, Dan Regularization of saddle functions. **82b:90093**
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Wolkowicz, Henry Shadow prices for an unstable convex program. **82d:90100**
Yun, Tian Quan A fast algorithm for one-dimensional optimization problems of convex functions. (Chinese. English summary) **82a:90126**
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Al'ber, Ja. I. Minimization of functionals of class $C^{1,\omega}$ on bounded sets. (Russian) **(82e:49054)**
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Théra, Michel Subdifferential calculus for convex operators. **82f:90100**
Zimmermann, Karel (*with* Juhnke, Friedrich) Lineare Gleichungs- und Ungleichungssysteme auf extremalen Algebren. **82m:90160**
Solution of some optimization problems on the extremal algebra. **82g:90079**

secondary classifications:

Asimow, L. Separation and optimization in function spaces. **(82m:90128)**
Bolkov, V. A. (*with* Černyĭ, V. I.) Decomposition of linear functional problems. II. Linear dynamic problems. **(82i:90068b)**
Černyĭ, V. I. Decomposition of linear functional problems. I. Linear programming in Hilbert space. **(82i:90068a)**
See also **Bolkov, V. A., (82i:90068b)**
Craven, B. D. (*with* Zlobec, S.) Complete characterization of optimality for convex programming in Banach spaces. **(82b:90089)**
Dolecki, Szymon A general theory of necessary optimality conditions. **(82h:49030)**
Ekeland, Ivar (*with* Lasry, Jean-Michel) Problèmes variationnels non convexes en dualité. (English summary) **(82g:58021)**
Fujimoto, Takao Nonlinear complementarity problems in a function space. **(82k:90117)**
Gähler, Siegfried Generalized notions of differentiability and their application in optimization theory. **(82k:49021)**
Verallgemeinerte Ableitungen und Vektoroptimierung. **(82d:90117)**
Isac, George ★Cônes localement bornés et cônes complètement réguliers. (French) [Locally bounded cones and completely regular cones] **(82j:47069)**
Kirsch, Andreas Continuous perturbations of infinite optimization problems. **(82f:90089)**
Lasry, Jean-Michel *See* **Ekeland, Ivar, (82g:58021)**
Lorentz, Rainer On normality of a special problem of optimal control. **(82k:49034)**
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Precupanu, Teodor Duality in best approximation problem. **(82a:41025)**
Reiland, Thomas W. Optimality conditions and duality in continuous programming. I. Convex programs and a theorem of the alternative. **(82c:90077a)**
Optimality conditions and duality in continuous programming. II. The linear problem revisited. **(82c:90077b)**
Shih, Mou Hsiang A further generalization of the Ostrowski theorem in Banach spaces. **(82j:58015)**
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Kibalov, E. B. (*with* Hutoreckiĭ, A. B.) A two-stage approach to the optimization of long-term construction programs. (Russian) **82e:90114**
Lasdon, Leon S. (*with* Waren, Allan D.) Survey of nonlinear programming applications. **82a:90181**
Lazebnik, A. I. (*with* Hranovič, I. L.; Callagova, O. N.) Generalized-separable programming in the solution of certain energy problems. (Russian) **82g:90080b**
Lehtomaki, Norman A. Further comments on: "Application of 0-1 integer programming to multitarget tracking problems" [IEEE Trans. Automat. Control **22** (1977), no. 3, 302–312; MR **57** #5119] by C. L. Morefield. **82d:90130**
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secondary classifications:

Berger, C. *See* **Haurie, A.; et al., (82e:92037)**
Delahaye, J.-P. Détermination de la période d'une suite pseudo-périodique. (English summary) **(82h:58053)**
Ecker, J. G. Geometric programming: methods, computations and applications. **(82c:90078)**
Fletcher, Roger A nonlinear programming problem in statistics (educational testing). **(82k:90098)**
Gunther, Georg (*with* Hartnell, B. L.) Optimal k-secure graphs. **(82b:05083)**
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Haton, J. P. (*with* Mohr, R.) Utilisation de la programmation dynamique en reconnaissance des formes et traitement d'images. **(82h:68117)**
Haurie, A. (*with* Berger, C.; Pelland, S.) Optimal control of discrete time population processes. **(82e:92037)**
Kazancev, V. S. A taxonomy algorithm based on the use of linear inequalities. (Russian) **(82g:92007)**
Kočev, Iv. Synthesis of lever mechanisms using linear programming methods. (Bulgarian. Russian and English summaries) **(82h:70002)**
Levhari, David (*with* Mirman, Leonard J.; Zilcha, Itzhak) Capital accumulation under uncertainty. **(82c:90004)**
Lind, N. C. *See* **Siu, W. W. C.; et al., (82d:60032)**
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Pelland, S. *See* **Haurie, A.; et al., (82e:92037)**
Sengupta, S. S. *See* **Siu, W. W. C.; et al., (82d:60032)**
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Irle, Albrecht Minimax theorems under convexity conditions—a survey. **82k:90133**
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Murray, Ian W. *See* **Hathaway, Neville J.; et al., 82k:90132**
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Preda, Vasile Completeness of the class of Bayes solutions in the sense of Wald. **82j:90081**
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Shubik, Martin (*with* Weber, Robert James) Systems defense games: Colonel Blotto, command and control. **82f:90103**
Šolpo, I. A. Hierarchical games with ordered outcomes. **82k:90135**
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Tynjanskiĭ, N. T. (*with* Vasil'ev, N. S.) Hierarchical differential games. (Russian) **82b:90130**
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Vorob'ev, N. N., Jr. Antagonistic games with a convex payoff function. (Russian) **82m:90166**
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Adachi, Akeo *See* **Kasai, Takumi; et al., (82a:68075)**
Angrand, F. (*with* Enjalbert, B.; Fouche, M. H.; Lemaréchal, C.) Gradient type optimization methods to solve differential games applied to tri-dimensional air-to-air combats. **(82m:90179)**
Belen'kiĭ, A. S. Finding saddle points on convex polyhedra in minimax optimization problems with linear constraints. **(82j:49009)**
Bellieri dei Belliera, Augusto On the class of games of timing of incomplete information. **(82d:90137a)**
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Blackwell, David Borel sets via games. **(82e:28001)**
Bornard, G. *See* **Gauthier, J.-P., (82d:49031)**
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Lenstra, H. W., Jr. Nim multiplication. **(82i:04002)**
Luh, Peter B. *See* **Ho, Yu Chi; et al., (82e:93098)**
Malafeev, O. A. The existence of equilibrium situations in two-person noncooperative differential games with independent moves. (Russian. English summary) **(82c:90104)**
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Ruckle, William H. Pursuit on a cyclic graph—the symmetric stochastic case. **(82m:90186)**
Slezion, Dymitr Regularity of the optimal time and of the synthesis of optimal controls in linear antagonistic processes. (Polish. English summary) **(82f:90119)**
Stoica, Anca The equivalence of certain classes of stationary-optimal management problems. (Romanian. English summary) **(82h:90084)**
Tapiero, Charles S. (*with* Zuckerman, Dror) Optimum excess-loss reinsurance: a dynamic framework. **(82i:62151)**
Telgársky, Rastislav On point-open games and their generalizations. **(82b:54015)**
Theodorescu, Radu *See* **Nadeau, Raymond, (82e:90071)**
Topp, Jerzy Bemerkungen zu Kernen der paaren Graphen. **(82k:05057)**
Toti Rigatelli, Laura A normal form theorem for impartial two-person games. (Italian) **(82g:04002)**
Tucker, Alan ★Applied combinatorics. **(82f:05001)**
Zuckerman, Dror *See* **Tapiero, Charles S., (82i:62151)**

90D10 *n*-person games, noncooperative

Baba, N. (*with* Soeda, Takashi; Shoman, T.; Sawaragi, Yoshikazu) An application of the stochastic automaton to the investment game. **82c:90096**
Başar, Tamer Equilibrium strategies in dynamic games with multilevels of hierarchy. **82k:90136**
Bird, Charles G. On the stability of a class of noncooperative games. **82k:90137**
Butnariu, Dan Two-dimensional concepts of nucleolus and kernel for an *n*-persons game. (*See* **82e:90005**)
Černjakov, A. G. On the structure of the set of degenerate finite noncooperative games. (German and Russian summaries) **82g:90081**
DeBrock, Lawrence M. (*with* Roth, Alvin E.) Strike two: labor-management negotiations in major league baseball. **82m:90167**
Doležal, Jaroslav Hierarchical solution concept for decision problems with several objectives. (Russian summary) **82b:90131**
Kalai, Ehud Preplay negotiations and the prisoners' dilemma. **82h:90095**
Kurano, Masami (*with* Yasuda, Masami; Nakagami, Junichi) Multivariate stopping problem with a majority rule. (Japanese summary) **82b:90132**
Landau, Henry J. *See* **Rosenthal, Robert W., 82j:90083**
Mañas, M. Multiple payoff conflicts. **82f:90105**
Nakagami, Junichi *See* **Kurano, Masami; et al., 82b:90132**
Okada, A. On stability of perfect equilibrium points. **82k:90138**
Radner, Roy Monitoring cooperative agreements in a repeated principal-agent relationship. **82g:90082**
Rice, P. M. Local strategies and equilibria with an application to the committee decision process. **82m:90168**
Rosenthal, Robert W. Games of perfect information, predatory pricing and the chain-store paradox. **82m:90169**
(*with* Landau, Henry J.) Repeated bargaining with opportunities for learning. **82j:90083**
Roth, Alvin E. *See* **DeBrock, Lawrence M., 82m:90167**
Sawaragi, Yoshikazu *See* **Baba, N.; et al., 82c:90096**
Shoman, T. *See* **Baba, N.; et al., 82c:90096**
Smale, Steve The prisoner's dilemma and dynamical systems associated to noncooperative games. **82i:90122**
Soeda, Takashi *See* **Baba, N.; et al., 82c:90096**
Yasuda, Masami *See* **Kurano, Masami; et al., 82b:90132**

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Allende Alonso, Sira (*with* Bouza Herrera, Carlos) Determination of optimal policies for a system described by a noncooperative game. (Spanish) **(82e:62001)**
Bouza Herrera, Carlos *See* **Allende Alonso, Sira, (82e:62001)**
Devarajan, Shantayanan A note on network equilibrium and noncooperative games. **(82k:90055)**
Dubey, Pradeep (*with* Mas-Colell, Andreu; Shubik, Martin) Efficiency properties of strategic market games: an axiomatic approach. (*See* **82e:90023**)
Nash equilibria of market games: finiteness and inefficiency. (*See* **82e:90023**)
(*with* Shubik, Martin) A strategic market game with price and quantity strategies. **(82c:90020)**
Eisele, Theodor Direct factorizations of measures. **(82e:28004)**
Freixa i Pedrals, Enric Decisions of corporate bodies. (Catalan. English and Spanish summaries) **(82k:90024)**
Green, Edward J. Noncooperative price taking in large dynamic markets. (*See* **82e:90023**)
Marchi, Ezio The von Neumann growth model for an arbitrary set of nations or economies. **(82g:90023)**
Mas-Colell, Andreu Noncooperative approaches to the theory of perfect competition: presentation. (*See* **82e:90023**)
See also **Dubey, Pradeep; et al.,** (*See* **82e:90023**)
Myerson, Roger B. Incentive compatibility and the bargaining problem. **(82g:90009)**
Radner, Roy Collusive behavior in noncooperative epsilon-equilibria of oligopolies with long but finite lives. (*See* **82e:90023**)
Sakaguchi, Minoru Non-zero-sum games related to the secretary problem. (Japanese summary) **(82b:90129)**
Shubik, Martin *See* **Dubey, Pradeep, (82c:90020)** *and* (*See* **82e:90023**)

90D12 *n*-person games, cooperative, solution concepts

Albers, Wulf Grundzüge einiger Lösungskonzepte, die auf Forderungsniveaus der Spieler basieren. (English summary) (*See* **82e:90130**)
Bamberg, Günter Zur empirischen Relevanz gemischter Minimax-Strategien. (English summary) (*See* **82e:90130**)
Başar, Tamer (*with* Olsder, Geert Jan) Team-optimal closed-loop Stackelberg strategies in hierarchical control problems. **82e:90120**
Beltadze, G. N. Sets of equilibrium situations in lexicographic coalition-free games. (Russian. Georgian and English summaries) **82a:90183**
Bigulaev, Boris Infinite analogues of Nash's bargaining solution. (Russian. English and Lithuanian summaries) **82c:90097a**
The bargaining solution for cooperative games with quasipartitions of the set of players. (Russian. Lithuanian and English summaries) **82c:90097b**
Bolger, E. M. A class of power indices for voting games. **82f:90106**
Bruyneel, Guido Computation of the nucleolus of a game by means of minimal balanced sets. **82i:90123**
Demčuk, V. S. Cooperative market games with structure on the set of players. (Russian) **82c:90098**
Djubin, G. N. Existence of the Shapley value for games with a countable number of players. (Russian. Lithuanian and English summaries) **82i:90124**
Drăgan, I. A two-dimensional bargaining solution for cooperative *n*-person games. (*See* **82e:90005**)
Dubey, Pradeep (*with* Neyman, Abraham; Weber, Robert James) Value theory without efficiency. **82k:90139**
(*with* Shubik, Martin) Information conditions, communication and general equilibrium. **82m:90170**
Greenberg, Joseph Stability when mobility is restricted by the existing coalition structure. **82f:90107**
Gurvič, V. A. *See* **Vasin, A. A., 82m:90172**
Hart, Sergiu Measure-based values of market games. **82f:90108**
Idzik, Adam Two-stage noncooperative stochastic games with denumerable state spaces. **82f:90110**
Ishikawa, Shin (*with* Nakamura, Kenjiro) Representation of characteristic function games by social choice functions. **82m:90171**
Kahan, James P. (*with* Rapoport, Amnon) Coalition formation in the triad when two are weak and one is strong. **82c:90099**
Lemaire, Jean A nonsymmetrical value for games without transferable utilities: application to reinsurance. (French summary) **82a:90184**
Lutmanov, S. V. Sufficient conditions for the existence of an equilibrium set of strategies in differential *n*-person games. (Russian) **82e:90121**
Mas-Colell, Andreu Remarks on the game-theoretic analysis of a simple distribution of surplus problem. **82a:90185**
Mercik, Jacek W. On a winning coalition of the characteristic function game as a solution of the resource allocation problem. **82a:90186**
Mertens, Jean-François Values and derivatives. **82c:90100**
Nakamura, Kenjiro *See* **Ishikawa, Shin, 82m:90171**
Neyman, Abraham *See* **Dubey, Pradeep; et al., 82k:90139**
Olsder, Geert Jan *See* **Başar, Tamer, 82e:90120**
Pressacco, Flavio The constrained competitive bargaining set for homogeneous weighted majority games. (Italian summary) **82c:90101**
Rapoport, Amnon *See* **Kahan, James P., 82c:90099**
Rosenmüller, Joachim Einstimmigkeitsspiele 2. Art, Standortspiele und Fortsetzungsmöglichkeiten des Nash-Wertes. (English summary) (*See* **82e:90130**)
Selten, Reinhard Coalition probabilities in a noncooperative model of three-person quota game bargaining. (*See* **82e:90130**)
Shubik, Martin *See* **Dubey, Pradeep, 82m:90170**
Ştefănescu, Anton Analytic construction of solutions of a three-person game. (Romanian. English summary) **82j:90084**
Tauman, Yair Value on the space of all scalar integrable games. **82f:90109**
Thompson, Earl A. Characteristics of worlds with perfect strategic communication. **82d:90135**
Thomson, William Two characterizations of the Raiffa solution. **82j:90085**
Varga, Z. Saddle points of vector-valued functions. (Russian) **82d:90136**
Vasil'ev, V. A. On a class of imputations in cooperative games. (Russian) **82g:90083**
Vasin, A. A. (*with* Gurvič, V. A.) Coalition situations of equilibrium in metagames. (Russian) **82m:90172**
Weber, Robert James *See* **Dubey, Pradeep; et al., 82k:90139**
Williams, R. J. Mixed strategy solutions for *N*-person quadratic games. **82k:90140**

secondary classifications:

Brams, Steven J. (*with* Zagare, Frank C.) Double deception: two against one in three-person games. **(82d:90146)**
Drèze, Jacques H. (*with* Greenberg, Joseph) Hedonic coalitions: optimality and stability. **(82k:90016)**
Greenberg, Joseph *See* **Drèze, Jacques H., (82k:90016)**
Kaneko, Mamoru An extension of the Nash bargaining problem and the Nash social welfare function. **(82e:90011)**
Kobayashi, Takao Equilibrium contracts for syndicates with differential information. **(82i:90014)**
Mareš, M. General coalition-games and markets. **(82m:90040)**
Nurmi, Hannu Game theory and power indices. **(82j:90005)**
Radner, Roy Monitoring cooperative agreements in a repeated principal-agent relationship. **(82g:90082)**
Schmitendorf, W. E. Optimal control of systems with multiple criteria when disturbances are present. **(82m:90175)**
Shenoy, P. P. On coalition formation: a game-theoretical approach. **(82k:90017)**
Zagare, Frank C. *See* **Brams, Steven J., (82d:90146)**

90D13 Infinite games

Bellieri dei Belliera, Augusto On the class of games of timing of incomplete information. **82d:90137a**
Errata: "On the class of games of timing of incomplete information". **82d:90137b**
Billera, Louis J. (*with* Raanan, Joseph) Cores of nonatomic linear production games. **82i:90125**
Neyman, Abraham Singular games have asymptotic values. **82m:90173**
Raanan, Joseph *See* **Billera, Louis J., 82i:90125**

secondary classifications:

Dubey, Pradeep (*with* Neyman, Abraham; Weber, Robert James) Value theory without efficiency. **(82k:90139)**
Kechris, Alexander S. *See* **Martin, Donald A., (*See* 82m:03063)**
Martin, Donald A. (*with* Kechris, Alexander S.) Infinite games and effective descriptive set theory. (*See* **82m:03063)**
Mas-Colell, Andreu Remarks on the game-theoretic analysis of a simple distribution of surplus problem. **(82a:90185)**
Neyman, Abraham *See* **Dubey, Pradeep; et al., (82k:90139)**
Weber, Robert James *See* **Dubey, Pradeep; et al., (82k:90139)**
Analytic sets ★Analytic sets. **(82m:03063)**
Conference:
Analytic Sets ★Analytic sets. **(82m:03063)**
London ★Analytic sets. **(82m:03063)**

90D15 Multistage games, stochastic [See also 93E05.]

Berengut, David A random Hopscotch problem or how to make Johnny read more. (*See* **82b:00003)**
Frick, H. On maximum tests for normal distributions. **82b:90133**
Rosenthal, Robert W. Sequences of games with varying opponents. **82g:90084**
Sengupta, Jati K. Constrained nonzero-sum games with partially controllable strategies. **82c:90102**
Vrieze, O. J. (*with* Wanrooy, G. L.) ★Colloquium stochastische spelen. (Dutch) [Colloquium on stochastic games] **82b:90134**
Wanrooy, G. L. *See* **Vrieze, O. J., 82b:90134**

secondary classifications:

Berry, Donald A. (*with* Fristedt, Bert) Two-armed bandits with a goal. I. One arm known. **(82g:62113a)**
(*with* Fristedt, Bert) Two-armed bandits with a goal. II. Dependent arms. **(82g:62113b)**
Cybakov, B. S. Resolution of a conflict of known multiplicity. **(82i:94004)**
Fristedt, Bert *See* **Berry, Donald A., (82g:62113a)** *and* **(82g:62113b)**
Morris, Joel M. On single-sample robust detection of known signals with additive unknown-mean amplitude-bounded random interference. II. The randomized decision rule solution. **(82d:94018)**
Sudderth, William D. Countably additive gambling with a general expected reward. **(82c:60078)**

90D20 Multistage games, recursive

Gasanov, I. I. (*with* Ragimov, Ju. S.) On a control problem in a two-level hierarchical system. (Russian) **82k:90141**
Kononenko, A. F. (*with* Strongin, R. G.) Analysis of stable situations in recurring processes. (Russian) (*See* **82f:90002)**
Lagunov, V. N. A multistage *n*-person game which is analogous to a hypergame, and methods for its solution. (Russian) **82d:90138**
Maljukov, V. P. Conflict interaction of economic models. **82b:90135**
Ragimov, Ju. S. *See* **Gasanov, I. I., 82k:90141**
Strongin, R. G. *See* **Kononenko, A. F., (*See* 82f:90002)**

secondary classifications:

Başar, Tamer Equilibrium strategies in dynamic games with multilevels of hierarchy. **(82k:90136)**
Kurano, Masami (*with* Yasuda, Masami; Nakagami, Junichi) Multivariate stopping problem with a majority rule. (Japanese summary) **(82b:90132)**
Nakagami, Junichi *See* **Kurano, Masami; et al., (82b:90132)**
Yasuda, Masami *See* **Kurano, Masami; et al., (82b:90132)**

90D25 Differential games

Azamov, A. The second variation of the proof of Pontrjagin's theorem in differential game theory. (Russian) **82e:90122**
Azimov, A. Ja. (*with* Fan Zuĭ Haĭ) Linear discrete games with resource constraints on controls. (Russian. Azerbaijani and English summaries) **82i:90126**
Bai, Do Sun *See* **Kim, D. W., 82h:90096**
Başar, Tamer Memory strategies and a general theory for Stackelberg games with partial state information. **82d:90139**
Bernhard, P. Technical comment to: "Linear-quadratic two-person zero-sum differential games: necessary and sufficient conditions" [J. Optim. Theory Appl. **27** (1979), no. 1, 51–69; MR 80c:90165]. **82h:90136**
Čencov, A. G. *See* **Ruzakov, V. Ja., 82e:90124**
Čikriĭ, A. A. Quasilinear many-person differential games. (Russian) **82f:90111**
Cruz, J. B., Jr. On order reduction for models of Nash and Stackelberg differential games. (*See* **82e:94002)**
See also **Papavassilopoulos, G. P., 82c:90105**
Eirola, Timo *See* **Hämäläinen, Raimo P., 82g:90085**
Èšmamatov, B. The problem of deviation from an encounter in nonlinear *n*-person differential games. (Russian) **82a:90187**
Fan Zuĭ Haĭ *See* **Azimov, A. Ja., 82i:90126**
Farber, N. (*with* Shinar, J.) Approximate solution of singularly perturbed nonlinear pursuit-evasion games. **82f:90112**
(Goralčík, Pavel) *See* **Pontrjagin, L. S., 82g:90086**
Gusjatnikov, P. B. (*with* Polovinkin, E. S.) A linear differential game with a simple matrix. (Russian) **82c:90103**
Hämäläinen, Raimo P. (*with* Eirola, Timo) Trajectory sensitivity reduction in non-zero-sum differential games. **82g:90085**
Haug, Edward J. *See* **Huang, Ray C., 82i:90127**
Huang, Ray C. (*with* Haug, Edward J.) A distribution-theoretic method for design sensitivity analysis of mechanisms with intermittent motion. I. Theory. **82i:90127a**
(*with* Haug, Edward J.) A distribution-theoretic method for design sensitivity analysis of mechanisms with intermittent motion. II. Applications. **82i:90127b**
Kim, D. W. (*with* Bai, Do Sun) An adaptive algorithm for discrete-time differential games. **82h:90096**
Kononenko, A. F. (*with* Mamedov, M. B.) Linearly quadratic differential games with nonconflicting interests. (Russian) **82b:90137**
Kumar, P. R. Optimal mixed strategies in a dynamic game. **82e:90123**
Lagunov, V. N. (*with* Vasil'eva, L. G.) Solution of a problem of correction of a nonlinear controllable process. (Russian) **82f:90113**
Leondes, Cornelius T. (*with* Mons, B.) Differential games with noise-corrupted measurements. **82k:90142**
(*with* Sui, T. K.) Payoff sensitivity of linear quadratic differential games to parameter change. **82m:90174**
Maksimov, V. I. Approximation of nonlinear differential-difference games. (Russian) **82k:90143**
Malafeev, O. A. The existence of equilibrium situations in two-person noncooperative differential games with independent moves. (Russian. English summary) **82c:90104**
Mamedov, M. B. *See* **Kononenko, A. F., 82h:90137**
Mons, B. *See* **Leondes, Cornelius T., 82k:90142**
Nikol'skiĭ, M. S. On a class of differential games with fixed time. (Russian. Georgian and English summaries) **82f:90114**
Nikonov, O. I. Scale of estimates in a problem of game deviation of an ensemble of trajectories. (Russian) **82j:90086**
Papavassilopoulos, G. P. (*with* Cruz, J. B., Jr.) Sufficient conditions for Stackelberg and Nash strategies with memory. **82c:90105**
Pasikov, V. L. A problem of encounter of motions for integral equations. (Russian) **82d:90140**
Polovinkin, E. S. *See* **Gusjatnikov, P. B., 82c:90103**
Pontrjagin, L. S. Optimization and differential games. (Czech) **82g:90086**
Ruzakov, V. Ja. (*with* Čencov, A. G.) A class of differential games in mixed strategies. (Russian) **82e:90124**
Schmitendorf, W. E. Optimal control of systems with multiple criteria when disturbances are present. **82m:90175**
Sentis, Rémi Discretized feedback for differential games. **82c:90106**
Shinar, J. *See* **Farber, N., 82f:90112**
Sonnevend, Gy. Structural problems in the theory of bounded control for linear discrete time partially observed systems under nonstochastic bounded disturbances. **82i:90128**
Existence and numerical computation of extremal invariant sets in linear differential games with bounded controls. **82f:90115**
Sučkov, A. P. *See* **Tynjanskiĭ, N. T., 82a:90188**
Sui, T. K. *See* **Leondes, Cornelius T., 82m:90174**
Tallós, Péter A relaxation problem for multivalued differential equations. **82c:90107**
Taylor, James G. Mathematical analysis of nonlinear Helmbold-type equations of warfare. **82k:90144**
Tomskiĭ, G. V. Encounter-evasion problems in quasidynamic systems. **82k:90145**
Tynjanskiĭ, N. T. (*with* Sučkov, A. P.) Existence of a solution in linear differential games with general constraints on controls. (Russian) **82a:90188**
Vaĭsbord, È. M. (*with* Žukovskiĭ, V. I.) ★Введение в дифференциальные игры нескольких лиц и их приложения. (Russian) [Introduction to differential *n*-person games and their applications] **82f:90116**
Vasil'eva, L. G. A differential game of evasion. (Russian) **82e:90125**
A nonlinear differential game of evasion. (Russian) **82e:90126**
See also **Lagunov, V. N., 82f:90113**
Zhang, Si Ying On the quantitative and qualitative differential games. (Chinese. English summary) **82m:90176**
Žukovskiĭ, V. I. *See* **Vaĭsbord, È. M., 82f:90116**
Žukovskiĭ, V. N. Differential-difference noncooperative games. (Russian) **82c:90108**

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Azamov, A. An example of a nonlinear differential game of pursuit satisfying conditions of Pontrjagin's theorem. (Russian) **(82c:90109)**

On the number of intersections of solutions of a piecewise linear system with a sewing line. (Russian) **(82f:34054)**

Başar, Tamer On the saddle-point solutions of a class of stochastic differential games. **(82b:93032)**

(*with* Olsder, Geert Jan) Team-optimal closed-loop Stackelberg strategies in hierarchical control problems. **(82e:90120)**

On the saddle-point solution of a class of stochastic differential games. **(82j:93041)**

Blaquière, Augustin Necessary and sufficiency conditions for optimal strategies in impulsive control. **(82g:49012)**

See also **Ray, Alan Everton, (82e:49023)**

Bonder, Seth Mathematical modeling of military conflict situtations. **(82m:90100)**

Buslaeva, L. T. Stochastic control in a differential game. **(82k:93058)**

Čencov, A. G. On an alternative in a class of quasistrategies for a differential approach-evasion game. (Russian) **(82b:90138)**

Doležal, Jaroslav Hierarchical solution concept for decision problems with several objectives. (Russian summary) **(82b:90131)**

Filippova, T. F. A minimax problem of programmed control with connected constraints. (Russian) **(82m:49020)**

Kononenko, A. F. The structure of an optimal strategy in dynamical control systems. (Russian) **(82m:90193)**

Krasovskiĭ, N. N. (*with* Tret'jakov, V. E.) Saddle point of a stochastic differential game. (Russian) **(82b:93033)**

Kumar, P. R. (*with* Van Schuppen, J. H.) On Nash equilibrium solutions in stochastic dynamic games. **(82j:93042)**

Maksimov, V. I. A differential game with a functional payment. (Russian) **(82c:90114)**

Nakoulima, Ousseynou Sur un système d'inéquations quasi variationnelles bilatérales associé à un problème de jeu stochastique à somme non nulle. (English summary) **(82b:93034)**

Olsder, Geert Jan *See* **Başar, Tamer, (82e:90120)**

Pachter, M. (*with* Yavin, Yaakov) The hosnicidal chauffeur game—a stochastic model. **(82d:93059)**

Poliščuk, E. G. Upper estimate for the value of a linear differential game. **(82h:49011)**

Ponomarev, A. P. An error estimate of the numerical method of constructing an alternative Pontrjagin integral. (Russian) **(82a:65019)**

Ray, Alan Everton (*with* Blaquière, Augustin) Sufficient conditions for optimality of threat strategies in a differential game. **(82e:49023)**

Seade, Jesus The stability of Cournot revisited. **(82c:90017)**

Silin, D. B. *See* **Varga, Z., (82m:49012)**

Subbotin, A. I. Generalization of the fundamental equation of the theory of differential games. (Russian) **(82f:90104)**

Tallós, Péter On Nash-equilibrium trajectories of multivalued differential equations. **(82g:34017)**

Tret'jakov, V. E. *See* **Krasovskiĭ, N. N., (82b:93033)**

Vahrameev, S. A. Theorem on the alternative for a nonstationary differential encounter-evasion game. **(82m:90195)**

Van Schuppen, J. H. *See* **Kumar, P. R., (82j:93042)**

Varga, Z. (*with* Silin, D. B.) Pareto optimality in vector spaces. (Russian) **(82m:49012)**

Williams, R. J. Mixed strategy solutions for N-person quadratic games. **(82k:90140)**

Yavin, Yaakov *See* **Pachter, M., (82d:93059)**

Zeeman, E. C. Population dynamics from game theory. **(82e:58076)**

90D26 Pursuit and evasion games

Abramjanc, T. G. (*with* Maslov, E. P.; Rubinovič, E. Ja.) Elementary differential game of alternate pursuit. **82m:90177**

Aliev, A. D. Algorithmization of solutions of differential games with delay of tactical information. (Russian) **82e:90127**

Andrei, Neculai A new computational solution to linear quadratic tracking problem. (French and German summaries) **82m:90178**

Angrand, F. (*with* Enjalbert, B.; Fouche, M. H.; Lemaréchal, C.) Gradient type optimization methods to solve differential games applied to tri-dimensional air-to-air combats. **82m:90179**

Azamov, A. An example of a nonlinear differential game of pursuit satisfying conditions of Pontrjagin's theorem. (Russian) **82c:90109**

See also **Satimov, N., 82e:90129**

Barmish, B. Ross (*with* Schmitendorf, W. E.; Leitmann, G.) A note on avoidance control. **82m:90180**

Čencov, A. G. On an alternative in a class of quasistrategies for a differential approach-evasion game. (Russian) **82b:90138**

Džafarov, V. Ja. A differential approach game in Hilbert space. (Russian) **82f:90117**

Enjalbert, B. *See* **Angrand, F.; et al., 82m:90179**

Fazylov, A. Z. The structure of the solutions of a two-dimensional differential game on a half plane in irregular cases. (Russian. Uzbek summary) **82d:90141**

Discrete pursuit and evasion games with various constraints on the players' controls. (Russian) **82c:90112**

Linear differential pursuit games with various constraints on the players' controls. (Russian) **82d:90142**

Filat'ev, A. S. Approximate construction of the closed boundary of the region of the Earth's surface that can be reached by an aircraft. (Russian) **82j:90087**

Fouche, M. H. *See* **Angrand, F.; et al., 82m:90179**

Gabrièljan, M. S. (*with* Subbotin, A. I.) Game problems on encounter with m target sets. (Russian) **82i:90129**

Gal, Shmuel ★Search games. **82k:90146**

Grigorenko, N. L. On the linear problem of pursuit by several objects. (Russian) **82j:90088**

Grujić, Ljubomir T. (*with* Porter, B.) Discrete-time tracking systems incorporating Lur'e plants with multiple nonlinearities. **82c:90110**

Gutman, Shaul Remarks on capture-avoidance games. **82i:90130**

Hassan, Mohammed F. (*with* Singh, Madan G.) Decentralised controller with online interaction trajectory improvement. **82b:90139a**

See also **Moog, C., 82b:90139b**

Ivanov, R. P. Simple pursuit-evasion on a compactum. (Russian) **82d:90143**

Jaković, Vladimir About a man and lions. **82h:90097**

Kaśkosz, Barbara A sufficient condition for evasion in a nonlinear game. I. (Polish and Russian summaries) **82m:90181a**

A sufficient condition for evasion in a nonlinear game. II. (Polish and Russian summaries) **82m:90181b**

Korneev, V. A. (*with* Melikjan, A. A.) Impulse-differential encounter game. **82j:90089**

Kowolik, Jan On properties of extremal controls in a differential game. (Polish. English summary) **82c:90111a**

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Lagunov, V. N. (*with* Litvin, Ju. L.) A game of simple pursuit with an interval limiting the motion of the pursuer. (Russian) **82b:90140**

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See also **Barmish, B. Ross; et al., 82m:90180**

Lemaréchal, C. *See* **Angrand, F.; et al., 82m:90179**

Litvin, Ju. L. *See* **Lagunov, V. N., 82b:90140**

Maksimov, V. I. On the existence of a saddle point in a differential-difference encounter-evasion game. **82m:90182**

A differential game with a functional payment. (Russian) **82c:90114**

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Melikjan, A. A. *See* **Korneev, V. A., 82j:90089**

Mizukami, Koichi Decision making with partial information in a pursuit-evasion game. (*See* **82e:94002**)

Moog, C. Comment: "Decentralised controller with online interaction trajectory improvement" [Proc. IEE-D **127** (1980), no. 3, 142–148] by M. F. Hassan and M. G. Singh. **82b:90139b**

Nikol'skiĭ, M. S. (*with* Satimov, N.) A problem of evasion from certain pursuers. (Russian) **82m:90183**

Some computational aspects of Pontrjagin's first direct method in differential games. (Russian) **82d:90144**

Osipov, Ju. S. (*with* Pimenov, V. G.) On the theory of differential games in systems with aftereffect. **82j:90090**

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A nonautonomous differential evasion game. (Russian. English summary) **82m:90185**

Padilla, Consuelo S. Dynamic game approach to the dual control problem. (*See* **82c:94002**)

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Pimenov, V. G. *See* **Osipov, Ju. S., 82j:90090**

Pontrjagin, L. S. Linear differential pursuit games. (Russian) **82a:90189**

Porter, B. *See* **Grujić, Ljubomir T., 82c:90110**

Pšeničnyĭ, B. N. (*with* Rappoport, I. S.) A problem of group pursuit. **82a:90190**

Rappoport, I. S. *See* **Pšeničnyĭ, B. N., 82a:90190**

Rihsiev, B. B. *See* **Satimov, N., 82i:90131**

Rubinovič, E. Ja. *See* **Abramjanc, T. G.; et al., 82m:90177**

Ruckle, William H. Pursuit on a cyclic graph—the symmetric stochastic case. **82m:90186**

Satimov, N. (*with* Rihsiev, B. B.) On a complete study of L. S. Pontrjagin's generalized control example. (Russian) **82i:90131**

Two methods of pursuit in linear discrete games. (Russian) **82h:90141**

(*with* Azamov, A.) Problems of pursuit and evasion in differential games with an arbitrary number of players. (Russian) **82e:90129**

See also **Nikol'skiĭ, M. S., 82m:90183**

Schmitendorf, W. E. *See* **Barmish, B. Ross; et al., 82m:90180**

Singh, Madan G. *See* **Hassan, Mohammed F., 82b:90139a** *and* **Moog, C., 82b:90139b**

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Sleziona, Dymitr Regularity of the optimal time and of the synthesis of optimal controls in linear antagonistic processes. (Polish. English summary) **82f:90119**

Slobožanin, N. M. Justification of a conjecture of L. A. Petrosjan. (Russian. English summary) **82j:90091**

Solov'eva, O. A. Simple pursuit of an object by m objects (the case of l-capture, where l is different for different pursuers). (Russian) **82h:90142**

Subbotin, A. I. *See* **Kreknin, A. A., 82c:90113** *and* **Gabrièljan, M. S., 82i:90129**

Zak, V. L. On a problem of evading many pursuers. **82m:90187**

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Corwin, Thomas L. Search for a moving target under minimax estimation. **(82c:62016)**

Hadeler, K. P. (*with* de Mottoni, P.; Schumacher, Konrad) Dynamic models for animal orientation. **(82m:92024)**

Hatlee, Michael D. (*with* Kozak, John J.) Stochastic flows in integral and fractal dimensions and morphogenesis. **(82m:92008)**

Kozak, John J. *See* **Hatlee, Michael D., (82m:92008)**

Krjažimskiĭ, A. V. (*with* Maksimov, V. I.) Approximation in linear differential-difference games. **(82m:90194)**

Leondes, Cornelius T. *See* **Chompaisal, A., (82d:93058)**

Maksimov, V. I. *See* **Krjažimskiĭ, A. V., (82m:90194)**

Medvedev, V. S. *See* **Vereščagin, A. F.; et al., (82d:93014)**
de Mottoni, P. *See* **Hadeler, K. P.; et al., (82m:92024)**
Pachter, M. (*with* Yavin, Yaakov) A stochastic homicidal chauffeur pursuit-evasion differential game. **(82j:93043)**
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Puzanov, V. P. *See* **Vereščagin, A. F.; et al., (82d:93014)**
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Vereščagin, A. F. (*with* Medvedev, V. S.; Puzanov, V. P.) Algorithms for optimizing the trajectories of motion in the case of controllable search for objects. **(82d:93014)**
Yavin, Yaakov *See* **Pachter, M., (82d:93059)** *and* **(82j:93043)**

90D30 Utility theory [See also 90A10.]

secondary classifications:

Aubin, Jean-Pierre (*with* Siegel, Jerrold) Fixed points and stationary points of dissipative multivalued maps. **(82a:54081)**
Siegel, Jerrold *See* **Aubin, Jean-Pierre, (82a:54081)**
Stefanik, Richard J. Harsanyi's critical rule utilitarianism. **(82i:90009)**

90D35 Decision theory [See also 62Cxx, 90A05, 90B50.]

Bagchi, Arunabha (*with* Başar, Tamer) Team decision theory for linear continuous-time systems. **82d:90145**
Başar, Tamer Hierarchical decisionmaking under uncertainty. **82c:90116**
See also **Bagchi, Arunabha, 82d:90145**
Blackwell, David (*with* Girshick, M. A.) ★Theory of games and statistical decisions. **82a:90191**
Brams, Steven J. (*with* Zagare, Frank C.) Double deception: two against one in three-person games. **82d:90146**
de Bruijn, N. G. Pretzel solitaire as a pastime for the lonely mathematician. (*See* **82b:00003**)
Girshick, M. A. *See* **Blackwell, David, 82a:90191**
Güth, Werner Kriterien für die Konstruktion fairer Aufteilungsspiele. (*See* **82e:90130**)
Hess, James (*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. II. Degraded communications with linear time-varying dynamics. **82d:90147b**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. III. Degraded intelligence and communications. **82d:90147c**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. I. Degraded communications. **82d:90147a**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. IV. Perfect intelligence and communications. **82d:90147d**
Kagiwada, Harriet (*with* Kalaba, Robert; Spingarn, K.) Optimal tactics for close support operations. VI. Summary of numerical results. **82d:90147f**
See also **Hess, James; et al., 82d:90147**
Kalaba, Robert (*with* Spingarn, K.; Tesfatsion, Leigh) Optimal strategies for C^3 problems. V. The incorporation of symmetrical rationality. **82d:90147e**
See also **Hess, James; et al., 82d:90147** *and* **Kagiwada, Harriet; et al., 82d:90147f**
Maiminas, E. Z. *See* **Vilkas, Eduardas, 82m:90188**
Miyao, Takahiro (*with* Shapiro, Perry) Discrete choice and variable returns to scale. **82j:90092**
Nevison, Chr. H. Structural power and satisfaction in simple games. **82i:90132**
Shapiro, Perry *See* **Miyao, Takahiro, 82j:90092**
Spingarn, K. *See* **Hess, James; et al., 82d:90147 Kalaba, Robert; et al., 82d:90147e** *and* **Kagiwada, Harriet; et al., 82d:90147f**
Tesfatsion, Leigh *See* **Kalaba, Robert; et al., 82d:90147e**
Tsokos, Chris P. *See* **Hess, James; et al., 82d:90147**
Vilkas, Eduardas (*with* Maiminas, E. Z.) ★Решения: теория, информация, моделирование. (Russian) [Decisions: theory, information, modeling] **82m:90188**
Zagare, Frank C. *See* **Brams, Steven J., 82d:90146**

secondary classifications:

Wierzbicki, Andrzej P. A methodological guide to multiobjective optimization. **(82c:90007)**

90D40 Game theory models [See also 65Cxx, 68Cxx, 68Jxx.]

Friedman, James W. A note on the turnpike properties of time dependent supergames. **82k:90147**
Imbert, J. E. (*with* Petrosian, L. A.) A game-theoretic model with rhomboidal control structure. (Spanish) **82m:90189**
Kondrat'ev, A. I. Modeling of complex systems based on conflict by a normative game theory method. (Russian) **82m:90190**
Myerson, Roger B. Optimal auction design. **82m:90191**
Petrosian, L. A. *See* **Imbert, J. E., 82m:90189**
Shefrin, H. M. (*with* Thaler, Richard) Interpreting α-rationality in hierarchical games. **82g:90087**
Thaler, Richard *See* **Shefrin, H. M., 82g:90087**
Zinger, A. A. Concentrated firing in many-versus-many duels. **82c:90117**

secondary classifications:

Bulmer, M. G. *See* **Taylor, Peter D., (82j:92047)**
Gottlieb, Ramon *See* **Schuster, Peter; et al., (82e:92039c)**
Heckathorn, Douglas A unified model for bargaining and conflict. **(82d:90008)**
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Hofbauer, Josef *See* **Schuster, Peter; et al., (82e:92039a); (82e:92039b)** *and* **(82e:92039c)**
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Riker, William A mathematical theory of political coalitions. (*See* **82g:92002**)
Schuster, Peter (*with* Sigmund, Karl; Hofbauer, Josef; Wolff, Robert) Self-regulation of behaviour in animal societies. I. Symmetric contests. **(82e:92039a)**
(*with* Sigmund, Karl; Hofbauer, Josef; Wolff, Robert) Self-regulation of behaviour in animal societies. II. Games between two populations without self-interaction. **(82e:92039b)**
(*with* Sigmund, Karl; Hofbauer, Josef; Gottlieb, Ramon; Merz, Philip) Self-regulation of behaviour in animal societies. III. Games between two populations with self-interaction. **(82e:92039c)**
Sigmund, Karl *See* **Schuster, Peter; et al., (82e:92039a); (82e:92039b)** *and* **(82e:92039c)**
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Wolff, Robert *See* **Schuster, Peter; et al., (82e:92039a)** *and* **(82e:92039b)**

90D42 Positional and lattice games

Beltadze, G. N. Partitions and a c-core in lexicographic cooperative games. (Russian) **82m:90192**
Kononenko, A. F. The structure of an optimal strategy in dynamical control systems. (Russian) **82m:90193**
Krjažimskiĭ, A. V. (*with* Maksimov, V. I.) Approximation in linear differential-difference games. **82m:90194**
Kummer, Bernd ★Spiele auf Graphen. (German) [Games on graphs] **82h:90098**
Maksimov, V. I. *See* **Krjažimskiĭ, A. V., 82m:90194**
Schimanovich, Werner An axiomatic theory of winning mathematical games and economic actions. **82k:90148**
Vahrameev, S. A. Theorem on the alternative for a nonstationary differential encounter-evasion game. **82m:90195**

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de Bruijn, N. G. Pretzel solitaire as a pastime for the lonely mathematician. (*See* **82b:00003**)
Hattori, Yasunao A note on topological games and total paracompactness. **(82m:54014)**
Lengauer, Thomas (*with* Tarjan, Robert Endre) The space complexity of pebble games on trees. **(82c:68023)**
Loui, Michael C. A note on the pebble game. **(82c:68024)**
Ostaszewski, Adam J. (*with* Telgársky, Rastislav) Topological games and analytic sets. II. **(82m:54039)**
Reischuk, Rüdiger Improved bounds on the problem of time-space trade-off in the pebble game. **(82c:68025)**
Tarjan, Robert Endre *See* **Lengauer, Thomas, (82c:68023)**
Telgársky, Rastislav *See* **Ostaszewski, Adam J., (82m:54039)**

90D45 Applications of game theory

(Albers, Wulf) *See* **Decisions in small groups, 82e:90130**
(Bamberg, Günter) *See* **Decisions in small groups, 82e:90130**
Brams, Steven J. Mathematics and theology: game-theoretic implications of God's omniscience. **82c:90118**
Goldman, Alan J. *See* **Pearl, Martin H., 82d:90148**
Paryani, Kioumars Applications of game theory in industrial engineering. (Persian) **82k:90149**
Pearl, Martin H. (*with* Goldman, Alan J.) A game-theoretic model of inspection-resource allocation. **82d:90148**
Peterson, Gary L. (*with* Reif, John H.) Multiple-person alternation. **82h:90099**
Reif, John H. *See* **Peterson, Gary L., 82h:90099**
(Selten, Reinhard) *See* **Decisions in small groups, 82e:90130**
Decisions in small groups ★Entscheidungen in kleinen Gruppen. (German) [Decisions in small groups] **82e:90130**
Jungholz ★Entscheidungen in kleinen Gruppen. (German) [Decisions in small groups] **82e:90130**
Workshop:
Decisions in Small Groups ★Entscheidungen in kleinen Gruppen. (German) [Decisions in small groups] **82e:90130**

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d'Atri, Gianfranco Outline of a probabilistic framework for combinatorial optimization. **(82f:90070)**
Balakrishnan, V. K. Strategic market games: an overview. **(82c:90024)**
Batteau, Pierre (*with* Blin, Jean-Marie; Monjardet, Bernard) Stability of aggregation procedures, ultrafilters, and simple games. **(82k:90020)**
Blin, Jean-Marie *See* **Batteau, Pierre; et al., (82k:90020)**
Dabagjan, A. V. (*with* Zaruba, V. Ja.) A game-theoretic auction scheme with redistribution of limited resources. (Russian) (*See* **82c:90002**)
Dasgupta, Partha (*with* Hammond, Peter J.; Maskin, Eric) The implementation of social choice rules: some general results on incentive compatibility. **(82g:90011)**
Fagen, Robert M. When doves conspire: evolution of nondamaging fighting tactics in a nonrandom-encounter animal conflict model. **(82a:92027)**
Gorelyi, A. V. Use of game-theoretic methods for problems of planning the development of transport. (Russian) (*See* **82c:90002**)

Hammond, Peter J. *See* **Dasgupta, Partha; et al., (82g:90011)**
Hart, Sergiu Values of large market games. **(82a:90032)**
Hess, James (*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. II. Degraded communications with linear time-varying dynamics. **(82d:90147b)**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. III. Degraded intelligence and communications. **(82d:90147c)**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. I. Degraded communications. **(82d:90147a)**
(*with* Kagiwada, Harriet; Kalaba, Robert; Spingarn, K.; Tsokos, Chris P.) Optimal tactics for close support operations. IV. Perfect intelligence and communications. **(82d:90147d)**
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See also **Hess, James; et al., (82d:90147a); (82d:90147b); (82d:90147c)** *and* **(82d:90147d)**
Kalaba, Robert (*with* Spingarn, K.; Tesfatsion, Leigh) Optimal strategies for C^3 problems. V. The incorporation of symmetrical rationality. **(82d:90147e)**
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Kashyap, Rangasami L. (*with* Mukundan, Rangaswamy) Algorithms for determining equilibrium points in *N*-stage voting games. **(82d:90013)**
Levine, P. Introduction à un modèle mathématique de l'inconscient: l'exemple de l'homme aux rats. (English summary) **(82a:92039)**
Maskin, Eric *See* **Dasgupta, Partha; et al., (82g:90011)**
Mkrtčjan, S. M. Computation of the Banzhaf index for characteristic functions. (Russian. Lithuanian and English summaries) **(82m:90016)**
Monjardet, Bernard *See* **Batteau, Pierre; et al., (82k:90020)**
Mukundan, Rangaswamy *See* **Kashyap, Rangasami L., (82d:90013)**
Nakagami, Junichi (*with* Yasuda, Masami) A saddle point of an inventory problem. **(82d:90052)**
Ostroy, Joseph M. The no-surplus condition as a characterization of perfectly competitive equilibrium. (*See* **82e:90023**)
Petrosjan, L. A. *See* **Zaharov, V. V., (82h:92051)**
Radner, Roy Monitoring cooperative agreements in a repeated principal-agent relationship. **(82g:90082)**
van Rhijn, Johan G. (*with* Vodegel, Ron) Being honest about one's intentions: an evolutionary stable strategy for animal conflicts. **(82c:92026)**
Schmeidler, David Walrasian analysis via strategic outcome functions. **(82h:90022)**
(Shell, Karl) *See* **Non-cooperative approaches to the theory of perfect competition, (82e:90023)**
Spingarn, K. *See* **Hess, James; et al., (82d:90147a); (82d:90147b); (82d:90147c); (82d:90147d); Kalaba, Robert; et al., (82d:90147e)** *and* **Kagiwada, Harriet; et al., (82d:90147f)**
Tesfatsion, Leigh *See* **Kalaba, Robert; et al., (82d:90147e)**
Tsokos, Chris P. *See* **Hess, James; et al., (82d:90147a); (82d:90147b); (82d:90147c)** *and* **(82d:90147d)**
Vodegel, Ron *See* **van Rhijn, Johan G., (82c:92026)**
Weese, Martin Generalized Ehrenfeucht games. **(82a:03033)**
Yasuda, Masami *See* **Nakagami, Junichi, (82d:90052)**
Zaharov, V. V. (*with* Petrosjan, L. A.) A game-theoretic approach to the problem of protection of the environment. (Russian. English summary) **(82h:92051)**
On the question of applying game theory to the problem of protection of the environment. (Russian. English summary) **(82h:92052)**
Zaruba, V. Ja. *See* **Dabagjan, A. V., (*See* 82c:90002)**
Zinger, A. A. Concentrated firing in many-versus-many duels. **(82c:90117)**
Non-cooperative approaches to the theory of perfect competition ★Noncooperative approaches to the theory of perfect competition. **(82e:90023)**

90D99 None of the above, but in this section

Barankin, Edward W. A playing of a game is an evolving stochastic process. **82c:90119**
Butnariu, Dan Models of fuzzy games. I, II. (Romanian. English summary) **82e:90131a**
Models of fuzzy games. III. (Romanian. English summary) **82e:90131b**
Grünbaum, Klaus (*with* Høholdt, Tom) On the organisation of bridge tournaments. (Danish. English summary) **82i:90133**
Høholdt, Tom *See* **Grünbaum, Klaus, 82i:90133**
Lewis, Ted (*with* Willard, Stephen) The rotating table. **82g:90088**
Mertens, Jean-François A note on the characteristic function of supergames. **82e:90132**
Schulz, Ulrich Ein mathematisches Modell für das Verhalten in Sequenzen von Prisoner's-Dilemma-Spielen unter Berücksichtigung von Erwartungen. (English summary) (*See* **82e:90130**)
Wendt, Dirk Optimales und reales Verhalten in Messick's Union-Dilemma-Game. (*See* **82e:90130**)
Whitaker, M. A. B. Mathematics of switching processes with applications to squash and statistical mechanics. **82k:90150**
Willard, Stephen *See* **Lewis, Ted, 82g:90088**

secondary classifications:

Bloom, Gary S. (*with* Kennedy, J. W.; Gewirtz, A.; Wexler, P. J.) Eodermdromes: a graph-theoretical tool for linguistics. **(82k:68032)**
Gewirtz, A. *See* **Bloom, Gary S.; et al., (82k:68032)**
Kennedy, J. W. *See* **Bloom, Gary S.; et al., (82k:68032)**
Over, D. E. Game theoretical semantics and entailment. **(82k:03022)**
Pearl, Judea The solution for the branching factor of the alpha-beta pruning algorithm. **(82m:68071)**
(Schwartz, Benjamin L.) *See* **Mathematical solitaires and games, (82i:00005)**
Wexler, P. J. *See* **Bloom, Gary S.; et al., (82k:68032)**
Games ★Mathematical solitaires & games. **(82i:00005)**
Mathematical solitaires and games ★Mathematical solitaires & games. **(82i:00005)**

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secondary classifications:

(Haken, Hermann) *See* **Pattern formation by dynamic systems and pattern recognition, (82k:00028)**
Leti, Giuseppe The distances in descriptive statistics. (French summary) **(82m:62031)**
Garmisch-Partenkirchen ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
Pattern formation by dynamic systems and pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
Pattern recognition ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
Symposium:
Synergetics ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**
Synergetics ★Pattern formation by dynamic systems and pattern recognition. **(82k:00028)**

92–01 Elementary exposition, textbooks

(Abramjanc, T. G.) *See* **Saridis, George N., 82e:92002**
Ahutin, V. M. (*with* Gurfinkel', V. S.; Gusel'nikov, V. I.; Emel'janov, V. N.; Kogan, A. B.; Levenko, B. A.; Litineckiĭ, I. B.; Simkin, G. N.) Current problems in bionics. (Russian) **82e:92001**
Bailey, Norman T. J. ★Statistical methods in biology. **82g:92001**
Bard, Jonathan L. B. (*with* Ghozlan, Aline; Goldbeter, Albert; Hardt, Shoshana; Levitzki, Alexander; Liron, Nadav; Odell, Garrett M.; Parnas, Hanna; Perelson, Alan S.; Rapp, P. E.; Rubinow, Sol I.; Segel, Lee A.; Tolkovsky, Aviva M.; Wehrhahn, Christian; Yagil, Gad; Zeigler, Bernard P.) ★Mathematical models in molecular and cellular biology. **82c:92001**
Čibej, Jože Andrej Biological systems and optimal control. (Slovenian. English summary) **82m:92001**
Emel'janov, V. N. *See* **Ahutin, V. M.; et al., 82e:92001**
Ghozlan, Aline *See* **Bard, Jonathan L. B.; et al., 82c:92001**
Goldbeter, Albert *See* **Bard, Jonathan L. B.; et al., 82c:92001**
Gould, P. *Q*-analysis, or a language of structure: an introduction for social scientists, geographers and planners. **82h:92001**
Gurfinkel', V. S. *See* **Ahutin, V. M.; et al., 82e:92001**
Gusel'nikov, V. I. *See* **Ahutin, V. M.; et al., 82e:92001**
Hardt, Shoshana *See* **Bard, Jonathan L. B.; et al., 82c:92001**
Kogan, A. B. *See* **Ahutin, V. M.; et al., 82e:92001**
Kramer, N. J. T. A. *See* **Van Gigch, J. P., 82d:92001**
Levenko, B. A. *See* **Ahutin, V. M.; et al., 82e:92001**
Levitzki, Alexander *See* **Bard, Jonathan L. B.; et al., 82c:92001**
(Lipcer, R. Š.) *See* **Saridis, George N., 82e:92002**
Liron, Nadav *See* **Bard, Jonathan L. B.; et al., 82c:92001**
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Environmetrics 81: selected papers ★Environmetrics 81: selected papers. **(82k:62004)**

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Alper, Joseph S. (*with* Lange, Robert V.) Lumsden-Wilson theory of gene-culture coevolution. **82f:92047**

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Doreian, Patrick Polyhedral dynamics and conflict mobilization in social networks. **82k:92070**

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Lippman, Steven A. (*with* McCall, John J.) The economics of belated information. **82g:92059**

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Pedretti, Annetta Epistemology, semantics, and self-reference. **82j:92062**

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(Abramjanc, T. G.) *See* **Saridis, George N., (82e:92002)**

Ageev, V. M. *See* **Petrov, V. V.; et al., (82f:90074)**

Barankin, Edward W. A playing of a game is an evolving stochastic process. **(82c:90119)**

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(Bogdan, Radu J.) *See* **Biography: Lehrer, Keith, (82f:03008)**

Bonczek, Robert H. (*with* Holsapple, Clyde W.; Whinston, Andrew B.) A generalized decision support system using predicate calculus and network data base management. **(82m:68139)**

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Brumelle, Shelby L. (*with* Gerchak, Yigal) A stochastic model allowing interaction among individuals and its behavior for large populations. **(82e:60111)**

Campbell, Donald E. Some strategic properties of plurality and majority voting. **(82i:90005)**

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Gagliano, Ross A. (*with* Lebkowski, Krzysztof S.) Cybernetics and a general theory of organization. **(82m:90003)**

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Gluškov, V. M. (*with* Ivanov, Viktor Vladimirovič; Janenko, V. M.; Jacenko, Ju. P.; Kakičev, S. V.) ★О средствах моделирования развивающихся систем. (Russian) [Procedures for modeling developing systems] **(82f:00017)**

Gould, P. *Q*-analysis, or a language of structure: an introduction for social scientists, geographers and planners. **(82b:92001)**

(Greenberg, Harvey J.) *See* **Computer-assisted analysis and model simplification, (82g:00016)**

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Lehoczky, John P. Approximations for interactive Markov chains in discrete and continuous time. **(82g:60137)**

(Lehrer, Keith) *See* **Biography: Lehrer, Keith, (82f:03008)**

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Moiseev, N. N. Human problems of systems analysis of large-scale ecology. (Russian) **(82m:92072)**

Neumaier, Arnold Distance matrices, dimension, and conference graphs. **(82m:05071)**

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Sakawa, Masatoshi (*with* Seo, Fumiko) Interactive multiobjective decisionmaking for large-scale systems and its application to environmental systems. **(82d:90121)**

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A common representation for problem-solving and language-comprehension information. **(82i:68057)**
Colonius, Hans Representation and uniqueness of the Bradley-Terry-Luce model for pair comparisons. **(82h:62005)**
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Fishburn, Peter C. Inverted orders for monotone scoring rules. **(82g:90012)**
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Kayser, Daniel Vers une modélisation du raisonnement "approximatif". **(82m:00017)**
Kleitman, Daniel J. (*with* Winston, Kenneth J.) Forests and score vectors. **(82e:05073)**
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Rastrigin, L. A. (*with* Èrenšteĭn, R. H.) ★Метод коллективного распознавания. (Russian) [A method of collective pattern recognition] **(82k:68056)**
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Roberts, Fred S. On Luce's theory of meaningfulness. **(82e:03015)**
Roney, Kathleen J. (*with* Shaw, Gordon L.) Analytic study of assemblies of neurons in memory storage. **(82d:92009)**
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93–02 Advanced exposition (research surveys, monographs, etc.)

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Young, Peter Parameter estimation for continuous-time models—a survey. **82a:93002**

secondary classifications:

Beneš, Jiří Whither cybernetics: past achievements and future prospects. **(82m:00024)**
Butkovskiĭ, A. G. (*with* Gavrilov, M. A.; Krasnenker, A. S.; Poznjak, A. S.; Cypkin, Ja. Z.) Some problems in engineering cybernetics. (Russian) **(82e:90003)**
Cypkin, Ja. Z. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Dubois, Didier (*with* Prade, Henri M.) ★Fuzzy sets and systems. **(82c:03074)**
Gavrilov, M. A. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Krasnenker, A. S. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Kuhtenko, O. I. What can the "abstract theory of systems" offer control science? **(82f:58076)**
Poznjak, A. S. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Prade, Henri M. *See* **Dubois, Didier, (82c:03074)**
Przeworska-Rolewicz, Danuta ★Shifts and periodicity for right invertible operators. **(82b:47012)**
Tsuyoshi, Matsuo ★Realization theory of continuous-time dynamical systems. **(82j:93012)**
Willsky, Alan S. ★Digital signal processing and control and estimation theory. **(82h:94002)**
(Zadeh, Lotfi A.) *See* **Dubois, Didier; et al., (82c:03074)**

93–03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

(Băliceanu, Constantin) *See* **Odobleja: Between Ampère and Wiener, (82h:01002)**
Bennett, Stuart ★A history of control engineering, 1800–1930. **(82j:01045)**
(Drăgănescu, Mihai) *See* **Odobleja: Between Ampère and Wiener, (82h:01002)**
Fuller, A. T. Clerk Maxwell's London notebooks: extracts relating to control and stability. **(82c:01048)**
(Giuculescu, Alexandru) *See* **Odobleja: Between Ampère and Wiener, (82h:01002)**
(Golu, Pantelimon) *See* **Odobleja: Between Ampère and Wiener, (82h:01002)**
Jain, L. C. System theory in Jaina school of mathematics. **(82j:01021)**
(Maxwell, James Clerk) *See* **Fuller, A. T., (82c:01048)**
(Odobleja, Ştefan) *See* **Odobleja: Between Ampère and Wiener, (82h:01002)**
Odobleja: Between Ampère and Wiener ★Odobleja: Between Ampère and Wiener. **(82h:01002)**

93–04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Hangos, Katalin Simulation studies. (Hungarian) **(82e:93138)**

93–06 Proceedings, conferences, etc.

(Abramov, Ju. A.) *See* **Mathematical methods of optimization and structuring of systems, 82h:93004**
(Allahverdiev, Dž. Ė.) *See* **Questions of mathematical cybernetics and applied mathematics, 82g:93002**
(Byrnes, Christopher I.) *See* **Algebraic and geometric methods in linear systems theory, 82a:93004** *and* **Geometrical methods for the theory of linear systems, 82h:93003**
(Čalyĭ, G. V.) *See* **Asynchronous motors and their optimization, 82g:93001**
(Emel'janov, S. V.) *See* **Engineering cybernetics, 82h:93001**
(Golembo, Z. B.) *See* **Engineering cybernetics, 82h:93001**
(Ivanenko, V. I.) *See* **Adaptive control systems, 82a:93003**
(Jakovlev, V. P.) *See* **Discrete control systems, 82d:93004**
(Kirk, Donald E.) *See* **Conference: Asilomar, Circuits, Systems and Computers, 82d:93001**
(Kuhtenko, O. I.) *See* **Complex control systems, 82a:93005**
(Kuncevič, V. M.) *See* **Discrete control systems, 82d:93004**
(Lainiotis, Demetrios G.) *See* **Conference: Information Sciences and Systems, 82d:93002** *and* **82d:93003**
(Lazarjan, V. A.) *See* **Oscillations, durability and stability of complex mechanical systems, 82e:93029a**
(Lebedev, D. V.) *See* **Complex control systems, 82a:93005** *and* **82e:93002**
(Leipholz, Horst) *See* **Structural control, 82g:93003**
(Martin, Clyde F.) *See* **Algebraic and geometric methods in linear systems theory, 82a:93004** *and* **Geometrical methods for the theory of linear systems, 82h:93003**
(Nazyrova, V. P.) *See* **Mathematical methods in cybernetics, 82a:93006** *and* **Mathematical methods in cybernetics, 82d:93006**
Pełczewski, Władysław ★Teoria sterowania. (Polish) [Control theory] **82k:93002**
(Petrov, B. N.) *See* **Engineering cybernetics, 82d:93005**
(Rvačov, V. L.) *See* **Mathematical methods in cybernetics, 82a:93006**
(Stojan, Ju. G.) *See* **Mathematical methods in cybernetics, 82d:93006**
(Sultangazin, U. M.) *See* **Differential equations and their applications, 82k:93003**
(Svirskaja, I. G.) *See* **Asynchronous motors and their optimization, 82g:93001**
(Tzannes, Nicolaos S.) *See* **Conference: Information Sciences and Systems, 82d:93002** *and* **Conference: Information Sciences and Systems, 82d:93003**
Adaptive control systems ★Адаптивные системы управления. (Russian) [Adaptive control systems] **82a:93003**
Advances in control ★Second International Conference on Information Sciences and Systems. Vol. II. **82d:93002**
Algebraic and geometric methods in linear systems theory ★Algebraic and geometric methods in linear systems theory. **82a:93004**
Applications of information and control systems ★Second International Conference on Information Sciences and Systems. Vol. III. **82d:93003**
Asynchronous motors and their optimization ★Асинхронные двигатели и их оптимизация. (Russian) [Asynchronous motors and their optimization] **82g:93001**
Cambridge, Mass. ★Algebraic and geometric methods in linear systems theory. **82a:93004**
★Geometrical methods for the theory of linear systems. **82h:93003**
Circuits ★Fourteenth Asilomar Conference on Circuits, Systems & Computers. **82d:93001**
Complex control systems ★Сложные системы управления. (Russian) [Complex control systems] **82a:93005**
★Сложные системы управления. (Russian) [Complex control systems] **82e:93002**

Complex mechanical systems ★Колебания, прочность и устойчивость сложных механических систем. (Russian) [Oscillations, durability and stability of complex mechanical systems] **82e:93029a**
Computers ★Fourteenth Asilomar Conference on Circuits, Systems & Computers. **82d:93001**
Conference:
Asilomar, Circuits, Systems and Computers ★Fourteenth Asilomar Conference on Circuits, Systems & Computers. **82d:93001**
Information Sciences and Systems ★Second International Conference on Information Sciences and Systems. Vol. II. **82d:93002**
★Second International Conference on Information Sciences and Systems. Vol. III. **82d:93003**
Control ★Structural control. **82g:93003**
Control systems ★Сложные системы управления. (Russian) [Complex control systems] **82a:93005**
★Адаптивные системы управления. (Russian) [Adaptive control systems] **82a:93003**
★Дискретные системы управления. (Russian) [Discrete control systems] **82d:93004**
★Сложные системы управления. (Russian) [Complex control systems] **82e:93002**
Cybernetics ★Математические методы кибернетики. (Russian) [Mathematical methods in cybernetics] **82a:93006**
★Математические методы кибернетики. (Russian) [Mathematical methods in cybernetics] **82d:93006**
★Вопросы математической кибернетики и прикладной математики. Вып. 4. (Russian) [Questions of mathematical cybernetics and applied mathematics. No. 4] **82g:93002**
Differential equations and their applications ★Дифференциальные уравнения и их приложения. (Russian) [Differential equations and their applications] **82k:93003**
Discrete control systems ★Дискретные системы управления. (Russian) [Discrete control systems] **82d:93004**
Engineering cybernetics ★Техническая кибернетика. Том 13. (Russian) [Engineering cybernetics. Vol. 13] **82d:93005**
★Техническая кибернетика. Том 14. (Russian) [Engineering cybernetics. Vol. 14] **82h:93001**
Geometrical methods for the theory of linear systems ★Geometrical methods for the theory of linear systems. **82b:93003**
Information sciences ★Second International Conference on Information Sciences and Systems. Vol. II. **82d:93002**
★Second International Conference on Information Sciences and Systems. Vol. III. **82d:93003**
Itogi Nauki i Tehniki ★Техническая кибернетика. Том 13. (Russian) [Engineering cybernetics. Vol. 13] **82d:93005**
★Техническая кибернетика. Том 14. (Russian) [Engineering cybernetics. Vol. 14] **82h:93001**
Linear systems theory ★Algebraic and geometric methods in linear systems theory. **82a:93004**
Mathematical methods in cybernetics ★Математические методы кибернетики. (Russian) [Mathematical methods in cybernetics] **82a:93006**
★Математические методы кибернетики. (Russian) [Mathematical methods in cybernetics] **82d:93006**
Mathematical methods of optimization and structuring of systems ★Математические методы оптимизации и структурирования систем. (Russian) [Mathematical methods of optimization and structuring of systems] **82b:93004**
NATO Advanced Study Institute:
Geometrical Methods for the Theory of Linear Systems ★Geometrical methods for the theory of linear systems. **82b:93003**
Optimization ★Математические методы оптимизации и структурирования систем. (Russian) [Mathematical methods of optimization and structuring of systems] **82b:93004**
Oscillations, durability and stability of complex mechanical systems ★Колебания, прочность и устойчивость сложных механических систем. (Russian) [Oscillations, durability and stability of complex mechanical systems] **82e:93029a**
Pacific Grove, Calif. ★Fourteenth Asilomar Conference on Circuits, Systems & Computers. **82d:93001**
Patras ★Second International Conference on Information Sciences and Systems. Vol. II. **82d:93002**
★Second International Conference on Information Sciences and Systems. Vol. III. **82d:93003**
Questions of mathematical cybernetics and applied mathematics ★Вопросы математической кибернетики и прикладной математики. Вып. 4. (Russian) [Questions of mathematical cybernetics and applied mathematics. No. 4] **82g:93002**
Structural control ★Structural control. **82g:93003**
Summer Seminar:
AMS-NASA-NATO, Algebraic and Geometric Methods in Linear Systems Theory ★Algebraic and geometric methods in linear systems theory. **82a:93004**
Symposium:
IUTAM, Structural Control ★Structural control. **82g:93003**
Systems ★Fourteenth Asilomar Conference on Circuits, Systems & Computers. **82d:93001**
Waterloo, Ont. ★Structural control. **82g:93003**

secondary classifications:

(Anapol'skiĭ, L. Ju.) *See* **Vector-valued Ljapunov functions and their construction, (82d:65004)**
(Bensoussan, Alain) *See* **Analysis and optimization of systems, (82b:49002)**
(Lions, Jacques-Louis) *See* **Analysis and optimization of systems, (82b:49002)**
(Matrosov, V. M.) *See* **Vector-valued Ljapunov functions and their construction, (82d:65004)**
(Nash, Peter) *See* **Systems modelling and optimization, (82m:90002)**
(Pichler, Franz R.) *See* **Progress in cybernetics and systems research, (82i:00031)**
(Rjabuškin, T. V.) *See* **Statistical methods in control, (82k:90004)**
(Trappl, Robert) *See* **Progress in cybernetics and systems research, (82i:00031)**
Analysis and optimization of systems ★Analysis and optimization of systems. **(82b:49002)**
Computer science ★1979 International Symposium on Circuits and Systems. **(82e:94002)**
Conference:
Analysis and Optimization of Systems ★Analysis and optimization of systems. **(82b:49002)**
Nonlinear Oscillations ★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. I. **(82k:70002a)**
★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. II. **(82k:70002b)**
Control ★Статистические методы в управлении. (Russian) [Statistical methods in control] **(82k:90004)**
IEEE Symposium:
Circuits and Systems ★1979 International Symposium on Circuits and Systems. **(82e:94002)**
Optimization ★Analysis and optimization of systems. **(82b:49002)**
Prague ★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. I. **(82k:70002a)**
★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. II. **(82k:70002b)**
Proceedings:
International Conference on Nonlinear Oscillations ★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. I. **(82k:70002a)**
★Proceedings of the VIIIth International Conference on Nonlinear Oscillations. Vol. II. **(82k:70002b)**
Progress in cybernetics and systems research ★Progress in cybernetics and systems research. Vol. VI. **(82i:00031)**
Statistical methods in control ★Статистические методы в управлении. (Russian) [Statistical methods in control] **(82k:90004)**
Systems modelling and optimization ★Systems modelling and optimization. **(82m:90002)**
Tokyo ★1979 International Symposium on Circuits and Systems. **(82e:94002)**
Vector-valued Ljapunov functions and their construction ★Вектор-функции Ляпунова и их построение. (Russian) [Vector-valued Ljapunov functions and their construction] **(82d:65004)**
Versailles ★Analysis and optimization of systems. **(82b:49002)**

93Axx General

93A05 Axiomatic system theory

Gorošin, O. I. *See* **Kafarov, V. V., 82a:93007**
Kafarov, V. V. (*with* Gorošin, O. I.) Axiomatic approach to the problem of control of chemical-engineering systems. (Russian) **82a:93007**
Nikanorov, S. P. (*with* Persic, D. B.) A direction in the development of systems theory and its value for applications. (Russian) **82e:93003**
Persic, D. B. *See* **Nikanorov, S. P., 82e:93003**
Vainštein, F. S. On algebraic methods in the structural theory of complex systems. (Russian) **82f:93002**

secondary classifications:

D'Ambrosio, Ubiratan The concept of time and dynamical implications. **(82j:00014)**
Gal'perin, I. I. Modern control theory in general systems theory. (Russian) **(82m:92007)**
Petri, C. A. Concurrency as a basis of systems thinking. **(82m:68056)**

93A10 General systems

Bălan, Trandafir T. Relativist aspects in general system theory. (*See* **82e:90005**)
Betta, Jan Formal analysis of selected properties of systems. (Polish. English and Russian summaries) **82f:93003**
Clark, John W. *See* **Tarn, T. J.; et al., 82j:93001**
Dočev, D. Tr. (*with* Dočev, Dočo T.) Some optimization problems for a general dynamical system. (Bulgarian. Russian and English summaries) **82g:93004a**
(*with* Dočev, Dočo T.) Limit sets of a general dynamical system. (Bulgarian. Russian and English summaries) **82g:93004b**
Stability in a general dynamical system. (Bulgarian. Russian and English summaries) **82g:93004c**
Some properties of general dynamical systems generated by a finite automaton and the intersection of their motions. (Bulgarian. Russian and English summaries) **82g:93004d**
Dočev, Dočo T. *See* **Dočev, D. Tr., 82g:93004**
Dufour, Jacques (*with* Gilles, G.) Information and complex systems. (*See* **82d:94002**)
Ferré, M. *See* **Mairlot, Fernand E.; et al., 82h:93002**
Gilles, G. *See* **Dufour, Jacques, (*See* 82d:94002)**
Godart, Odon *See* **Mairlot, Fernand E.; et al., 82h:93002**
Huang, Garng *See* **Tarn, T. J.; et al., 82j:93001**
Klett, Eberhard Über die mathematische Abbildung von Kausalzusammenhängen. **82a:93008**
Legasto, Augusto A., Jr. (*with* Maciariello, Joseph) System dynamics: a critical review. (*See* **82j:90021**)
Le Guyader, H. *See* **Mairlot, Fernand E.; et al., 82h:93002**
Maciariello, Joseph *See* **Legasto, Augusto A., Jr., (*See* 82j:90021)**
Mairlot, Fernand E. (*with* Godart, Odon; Le Guyader, H.; Vallet, Cl.; Ferré, M.; Moulin, Th.) Symposium: Notion de Temps et Cybernétique. **82h:93002**
McClamroch, N. H. ★State models of dynamic systems. **82i:93001**
Mečetnyĭ, V. S. Construction of the static characteristic of a multidimensional linear system. **82e:93004**

Moulin, Th. *See* **Mairlot, Fernand E.; et al., 82h:93002**
Negoiţă, C. V. ★Fuzzy systems. **82i:93002**
Pedrycz, Witold An approach to the analysis of fuzzy systems. **82i:93003**
Tarn, T. J. (*with* Huang, Garng; Clark, John W.) Modelling of quantum mechanical control systems. **82j:93001**
Vallet, Cl. *See* **Mairlot, Fernand E.; et al., 82h:93002**
Wu, Xue Mou Studies and applications of pansystems analysis. Ia. A brief survey of pansystems analysis. (Chinese) **82j:93002a**

Studies and applications of pansystems analysis. Ib. A brief survey of pansystems analysis. (Chinese) **82j:93002b**

Studies and applications of pansystems analysis. IV. Pansystem observocontrollability, pansystem logic and fuzziness. (Chinese. English summary) **82j:93002d**

Pansystems analysis—a new exploration of interdisciplinary investigation. Studies and applications of pansystems analysis. III. (Chinese. English summary) **82j:93002c**

Symposium:
Notion of Time and Cybernetics *See* **Mairlot, Fernand E.; et al., 82h:93002**

secondary classifications:

Anderson, David Hezekiah The volume of distribution in single-exit compartmental systems. **(82m:92018)**
Auble, G. T. *See* **Patten, B. C., (82i:92035)**
Beljaev, V. I. Prediction of structural changes of complex ecological systems subjected to perturbations by anthropogenic factors. **(82g:92044)**
Cecchini, Albert B. P. (*with* Melbin, Julius; Noordergraaf, Abraham) Set-point: is it a distinct structural entity in biological control? **(82m:92006)**
Chang, Min I. J. (*with* Soong, T. T.) Optimal controller placement in modal control of complex systems. **(82c:49011)**
Finkelstein, David Holistic methods in quantum logic. **(82m:81008)**
Fujishige, Satoru *See* **Iri, Masao, (82a:05039)**
Gössel, Michael *See* **Tai, N. D.; et al., (82h:49047)**
Harary, Frank Structural models and graph theory. (*See* **82g:00016**)
Holmberg, Andrea A systems engineering approach to biotechnical processes—experiences of modelling, estimation and control methods. **(82k:92064)**
Iri, Masao (*with* Fujishige, Satoru) Use of matroid theory in operations research, circuits and systems theory. **(82a:05039)**
Ivahnenko, O. G. (*with* Rao, M. G.) Prediction and extrapolation of meteorological fields by model self-organization. **(82h:86004)**
Kramer, N. J. T. A. *See* **Van Gigch, J. P., (82d:92001)**
Maggiolo-Schettini, Andrea (*with* Wedde, Horst; Winkowski, Józef) Modeling a solution for a control problem in distributed systems by restrictions. **(82e:68028)**
Marchand, A. *See* **Pacault, A.,** (*See* **82k:00028**)
Marx, Charles H. Structure et fonction vues par un physiologiste. (English summary) [Structure and function as viewed by a physiologist] **(82k:92004)**
Matsuno, Koichiro Dynamics of relations, sequential connectedness, and feedback loops in open systems. **(82f:92007)**
Melbin, Julius *See* **Cecchini, Albert B. P.; et al., (82m:92006)**
Noordergraaf, Abraham *See* **Cecchini, Albert B. P.; et al., (82m:92006)**
Pacault, A. (*with* Marchand, A.) Evolution of systems. Time scaling and scaling factors. (*See* **82k:00028**)
Patten, B. C. (*with* Auble, G. T.) Systems approach to the concept of niche. **(82i:92035)**
Perelman, Lewis J. Time in system dynamics. (*See* **82j:90021**)
Rao, M. G. *See* **Ivahnenko, O. G., (82h:86004)**
Roberts, Fred S. Structural models and graph theory. (*See* **82g:00016**)
Ryan, J. Philip Information-entropy interfaces and different levels of biological organization. **(82a:94042)**
Soong, T. T. *See* **Chang, Min I. J., (82c:49011)**
Straubel, R. *See* **Tai, N. D.; et al., (82h:49047)**
Sydow, A. Mathematical and simulation models in systems analysis (examples and experiences of ZKI). **(82f:00021)**
Tai, N. D. (*with* Gössel, Michael; Straubel, R.) On decomposition methods of large-scale systems for optimization problems. **(82h:49047)**
Tchoń, Krzysztof (*with* Wojciechowska, Jolanta) Towards a formal theory of description. **(82h:92005)**
Troch, I. Optimization and other nonclassical concepts in system modelling. **(82g:92009)**
Trutovskiĭ, V. B. On the question of the mathematical description of systems. (Russian) **(82a:68179)**
Vaĭnštein, F. S. On algebraic methods in the structural theory of complex systems. (Russian) **(82f:93002)**
Van Gigch, J. P. (*with* Kramer, N. J. T. A.) A taxonomy of systems science. **(82d:92001)**
Vašenko, V. P. Decomposition and separation of *n*-ary relations. (Russian) **(82a:04002)**
Wedde, Horst *See* **Maggiolo-Schettini, Andrea; et al., (82e:68028)**
Winkowski, Józef *See* **Maggiolo-Schettini, Andrea; et al., (82e:68028)**
Witten, Matthew A note on the structure of system state spaces and its implications on the existence of nonrepeatable experiments. **(82k:92006)**
Wojciechowska, Jolanta *See* **Tchoń, Krzysztof, (82h:92005)**

93A13 Hierarchical systems

Ahson, S. I. *See* **Rao, R. G., 82m:93001**
Brdyś, M. (*with* Findeisen, Władysław; Tatjewski, Piotr) Hierarchical control for systems operating in steady-state. **82k:93004**
Daniľčenko, T. N. *See* **Molodcov, D. A.; et al.,** (*See* **82f:90002**)
Ereško, F. I. *See* **Molodcov, D. A.; et al.,** (*See* **82f:90002**)
Findeisen, Władysław *See* **Brdyś, M.; et al., 82k:93004**
Gościński, Andrzej (*with* Zieliński, Krzysztof) A technique and a system structure for on-line activation moments determination for steady-state optimization. **82f:93004**
Kononenko, A. F. *See* **Molodcov, D. A.; et al.,** (*See* **82f:90002**)
Kovalenko, A. A. Structure of hierarchical systems. I. (Russian. English summary) **82a:93009**
Molodcov, D. A. (*with* Kononenko, A. F.; Daniľčenko, T. N.; Ereško, F. I.) Informational theory of hierarchical systems. (Russian) (*See* **82f:90002**)
Randveè, I. Decentralized control problems. Survey. (Russian. Estonian and English summaries) **82k:93005**
Rao, R. G. (*with* Ahson, S. I.) Control of interconnected power systems using two-level methods. **82m:93001**
Tatjewski, Piotr *See* **Brdyś, M.; et al., 82k:93004**
Wend, H. D. On hierarchical control of complex technological systems. **82f:93005**
Zieliński, Krzysztof *See* **Gościński, Andrzej, 82f:93004**

secondary classifications:

Bailey, F. N. *See* **Findeisen, Władysław; et al., (82h:93001)**
Brdyś, M. *See* **Findeisen, Władysław; et al., (82h:93001)**
Carlsson, Christer Adaptive multigoal control: an approach to applied systems analysis. **(82k:93042)**
Fedorov, V. V. *See* **Krasnoščekov, P. S.; et al., (82a:90156)**
Findeisen, Władysław (*with* Bailey, F. N.; Brdyś, M.; Malinowski, K.; Tatjewski, Piotr; Woźniak, A.) ★Control and coordination in hierarchical systems. **(82h:93001)**
Gunther, Georg (*with* Hartnell, B. L.) Optimal *k*-secure graphs. **(82h:05083)**
Gusev, L. A. (*with* Petrov, S. V.; Smirnova, I. M.; Tenenbaum, L. A.) Collateral-hierarchical graphs and graph substitution operations. **(82h:68128)**
Hartnell, B. L. *See* **Gunther, Georg, (82h:05083)**
Haruna, Koichi (*with* Komoda, Norihisa) Structural sensitivity analysis and its applications. **(82f:92048)**
Komoda, Norihisa *See* **Haruna, Koichi, (82f:92048)**
Krasnoščekov, P. S. (*with* Morozov, V. V.; Fedorov, V. V.) Planning of technological systems of multipurpose assignment. **(82a:90156)**
Mahmoud, Magdi S. Multilevel systems: information flow in large linear control problems. **(82a:93036)**
Malinowski, K. *See* **Findeisen, Władysław; et al., (82h:93001)**
Morozov, V. V. *See* **Krasnoščekov, P. S.; et al., (82a:90156)**
Nissen, David Notes on networks and mini-models. (*See* **82g:00016**)
Odekov, O. A. (*with* Tulaeva, S. V.) On the possibility of constructing a formal theory for geological formations. (Russian. Turkmen summary) **(82f:86004)**
Papageorgiou, M. (*with* Schmidt, Günter) On the hierarchical solution of nonlinear optimal control problems. **(82m:49042)**
Petrov, S. V. *See* **Gusev, L. A.; et al., (82h:68128)**
Popcov, S. L. Hierarchical systems: approach to the description of structure and properties. (Russian) **(82g:92060)**
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Stefański, J. A heuristic search for the best hierarchical structure. **(82d:90124)**
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Grujić, Ljubomir T. Stability theory of sets and singularly perturbed large-scale systems. **82k:93006a**

A lemma and absolute stability of nonstationary systems. **82k:93006b**

Gusev, Ju. M. (*with* Efanov, V. N.; Krymskiĭ, V. G.) Use of symmetrized sets for construction of an order mapping of transfer function matrices of multiply connected systems. (Russian) **82j:93003**
Ikeda, Masao (*with* Šiljak, Dragoslav D.) Decentralized stabilization of large scale systems with time delay. **82k:93007**
Kabamba, Pierre T. Model reduction by Euclidean methods. **82d:93007**
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Viswanadham, N. (*with* Ramakrishna, A.) Decentralized regulation of large dynamic systems with engineering applications. **82k:93009**

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Alpatov, A. P. *See* **Madatov, G. L.; et al., (82h:93028)**

Bernussou, J. (*with* Geromel, José C.) Stability approach to robust control for interconnected systems. **(82a:93040)**

Carlucci, D. (*with* Vallauri, M.) The use of simplified models for stability analysis of large-scale systems. **(82e:93089)**

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Geromel, José C. *See* **Bernussou, J., (82a:93040)**

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Gupta, Ramji Das (*with* Fairman, Frederick W.) On the design of observers for large multivariable systems. **(82m:93013)**

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Kafarov, V. V. (*with* Gorošin, O. I.) Axiomatic approach to the problem of control of chemical-engineering systems. (Russian) **(82a:93007)**

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Mažara, G. N. *See* **Madatov, G. L.; et al., (82h:93028)**

Moylan, Peter J. A relaxed dissipativeness test for the stability of large-scale systems. **(82f:93066)**

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Vidyasagar, M. Input-output stability of large-scale interconnected systems. **(82a:93051)**
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Yasuda, Kazunori (*with* Hirai, K.) Optimization of large-scale systems by means of decentralized state feedback. (*See* **82d:93001**)

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Ando, T. Limit of iterates of cascade addition of matrices. **82h:93004**

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Riccardi, Gregory A. The independence of control structures in abstract programming systems. **(82m:03061)**

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Leigh, J. R. (*with* Ng, M. H.) Correction to: "An algorithm for decomposing a two-dimensional nonlinear vector field" [IEEE Trans. Automat. Control **25** (1980), no. 1, 131–132; MR 80m:93010]. **82d:93009**

Ng, M. H. *See* **Leigh, J. R., 82d:93009**

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De Santis, Romano M. (*with* Feintuch, Avraham) Causality theory and multiplicative transformators. **(82e:93090)**

Dolezal, Vaclav A note on strictly causal operators. **(82g:47004)**

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Rosen, Robert The role of time in mathematical models. **(82j:92011)**

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Coppel, W. A. Linear systems: some algebraic aspects. **82j:93006**

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Arbib, Michael A. (*with* Manes, Ernest G.) Machines in a category. **(82i:68037)**

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93B05 Controllability

Allahverdiev, Dž. Ė. (*with* Šapiro, A. V.) Conditions for the complete controllability of linear systems in Banach spaces. (Russian. Azerbaijani and English summaries) **82k:93010**

Ando, Kazuaki On the practically reachable subspace of the discrete-time systems. **82h:93005**

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Arbel, Ami Controllability measures and actuator placement in oscillatory systems. **82c:93001**

Astrovskiĭ, A. I. (*with* Gurina, T. N.) Complete controllability of systems with aftereffect in a class of Čebyšev functions. (Russian. English summary) **82c:93002**

Avdonin, S. A. On controllability of systems with distributed parameters. (Russian. English summary) **82c:93003**

Baillieul, John Controllability and observability of polynomial dynamical systems. **82j:93007**

Baitmans, M. Domains of controllability for the van der Pol equation. (Russian) **82e:93006**

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Bonnard, Bernard (*with* Jurdjevic, V.; Kupka, Ivan A. K.; Sallet, G.) Systèmes de champs de vecteurs transitifs sur les groupes de Lie semi-simples et leurs espaces homogènes. **82a:93010**

Boothby, William M. (*with* Wilson, Edward N.) Determination of the transitivity of bilinear systems. **82m:93003**

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Chan, W. L. (*with* Li, C. W.) Controllabilities, observability and duality in linear systems with multiple norm-bounded controllers. **82f:93006**
(*with* Li, C. W.) Controllability, observability and duality in infinite-dimensional linear systems with multiple norm-bounded controllers. **82g:93006**

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Čurilov, A. N. The frequency theorem and the Lur'e equation. (Russian) **82k:93014**

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Kobayashi, Toshihiro Discrete-time controllability for distributed parameter systems. **82h:93006**

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Koussiouris, Trifon G. (*with* Kafiris, George P.) Controllability indices, observability indices and the Hankel matrix. **82e:93009**
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Manitius, A. Algebraic criteria of approximate controllability of retarded systems. **82f:93010**
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Moore, Bruce C. Principal component analysis in linear systems: controllability, observability, and model reduction. **82m:93009**
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Sosnowski, Andrzej *See* **Olbrot, Andrzej W., 82f:93012**
de Souza, Eurice (*with* Bhattacharyya, Shankar Prashad) Controllability and the linear equation $Ax=b$. **82i:93012**
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Stern, Ronald J. Asymptotic holdability. **82k:93017**
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Suzuki, Masayuki Composite controls for singularly perturbed systems. **82e:93014**
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Triggiani, Roberto Addendum: "A note on the lack of exact controllability for mild solutions in Banach spaces" [SIAM J. Control Optim. **15** (1977), no. 3, 407–411; MR **55** #8942]. **82a:93013**
Udilov, V. V. Miniversal deformation of complex orbits of systems of "input-output" type. (Russian) **82d:93013**
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Vereščagin, A. F. (*with* Medvedev, V. S.; Puzanov, V. P.) Algorithms for optimizing the trajectories of motion in the case of controllable search for objects. **82d:93014**
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Wilson, Edward N. *See* **Boothby, William M., 82m:93003**
Yip, Elizabeth L. (*with* Sincovec, Richard F.) Solvability, controllability, and observability of continuous descriptor systems. **82k:93018**
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Yoshikawa, Tsuneo Condition for existence of solutions of linear equations with arbitrary vectors and its relation to controllability. **82i:93013**
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Ževnin, A. A. (*with* Gluško, Ju. V.) Synthesis of an algorithm for the control of nonlinear nonstationary objects on the basis of the inverse problem of dynamics. (Russian) **82i:93014**

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Angell, Thomas S. On controllability for nonlinear hereditary systems: a fixed-point approach. **(82a:49042)**
Barnett, Stephen *See* **Maroulas, John, (82h:15014a)** *and* **(82h:15014b)**
Baženov, V. V. Problems of control of localization of processes of propagation in a plane. **(82k:90070)**
Bercovici, Hari Models of maximal dissipative operators. (Romanian. English summary) **(82c:47040)**
Bhattacharyya, Shankar Prashad *See* **de Souza, Eurice, (82h:15021)**
Bonnard, Bernard Couples de générateurs de certaines sous-algèbres de Lie de l'algèbre de Lie symplectique affine, et applications. **(82e:58038)**
Descusse, J. (*with* Malabre, M.) Model following using measured output feedback. **(82j:93017)**
Emre, E. (*with* Silverman, Leonard M.) The equation $XR+QY=\Phi$: a characterization of solutions. **(82c:15016)**
Fliess, Michel (*with* Normand-Cyrot, Dorothée) Vers une approche algébrique des systèmes non linéaires en temps discret. **(82m:93017)**
Gabasov, R. F. (*with* Karpuk, V. V.; Kirillova, F. M.) Some control problems for hereditary systems. **(82a:49043)**
Gałkowski, Krzysztof The state-space realization of an n-dimensional transfer function. **(82d:94072)**
Grasse, Kevin A. Perturbations of nonlinear controllable systems. **(82c:34080)**
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Karpuk, V. V. *See* **Gabasov, R. F.; et al., (82a:49043)**
Khadr, Amr S. (*with* Martin, Clyde F.) On the $Gl(n)$ action on linear systems: the orbit closure problem. **(82e:93025)**
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Lagnese, John Boundary patch control of the wave equation in some nonstar complemented regions. **(82g:35064)**
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Maroulas, John (*with* Barnett, Stephen) Polynomials with respect to a general basis. I. Theory. **(82h:15014a)**
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Martin, Clyde F. *See* **Khadr, Amr S., (82e:93025)**
Mohler, Ronald R. (*with* Kolodziej, Wojciech J.) An overview of bilinear system theory and applications. **(82g:93028)**
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Uhovskiĭ, M. R. Commutativity of finite-dimensional subalgebras of Lie algebras of vector fields that are solenoidal in a two-dimensional domain and tangent to its boundary. (Russian) **(82h:53090)**
Vifljancev, V. P. Local construction of a completely integrable differential system with singularities. (Russian) **(82k:35022)**
Zecca, P. *See* **Tiberio Bianchini, Rosa Maria, (82f:49043)**

93B07 Observability

Aidala, Vincent J. *See* **Nardone, Steven C., 82e:93018**
Banks, S. P. A note on nonlinear observers. **82k:93019**
Bendsøe, Martin Philip On the existence of observable single-output systems of a simple type. **82f:93014**
Bezrukavnikov, V. N. (*with* Jakovlev, V. B.) Computer design of discrete observers with given estimates of the transient process. (Russian) **82f:93015**
Das, Gourhari (*with* Ghoshal, T. K.) Reduced-order observer construction by generalized matrix inverse. **82b:93009**
Fairman, Frederick W. *See* **Gupta, Ranji Das; et al., 82h:93010** *and* **82m:93013**

Fujita, Wataru (*with* Kuhara, Shuji; Hisamura, Tomiji) Observability of parabolic-type distributed parameter systems with periodic scanning detection. **82j:93009**
Ghoshal, T. K. *See* **Das, Gourhari, 82h:93009**
Grasselli, Osvaldo M. (*with* Isidori, Alberto) An existence theorem for observers of bilinear systems. **82m:93012**
Gupta, Ramji Das (*with* Fairman, Frederick W.; Hinamoto, Takao) A direct procedure for the design of single functional observers. **82h:93010**
(*with* Fairman, Frederick W.) On the design of observers for large multivariable systems. **82m:93013**
Hautus, M. L. J. (*with* Sontag, Eduardo D.) An approach to detectability and observers. **82e:93016**
Hinamoto, Takao *See* **Gupta, Ramji Das; et al., 82h:93010**
Hippe, P. Comments on: "Minimal-order observers for linear multivariable systems with unmeasurable disturbances" [Internat. J. Control **28** (1978), no. 5, 743–751] by O'Reilly. **82a:93015c**
Hisamura, Tomiji *See* **Fujita, Wataru; et al., 82j:93009**
Hitotsuya, Shigeru *See* **Kobayashi, Toshihiro, 82h:93013**
Inooka, Hikaru (*with* Obinata, Goro) Use of an aggregation model as an observer. **82m:93014**
Isidori, Alberto *See* **Grasselli, Osvaldo M., 82m:93012**
Jakovlev, V. B. *See* **Bezrukavnikov, V. N., 82f:93015**
Kobayashi, Toshihiro (*with* Hitotsuya, Shigeru) Observers and parameter determination for distributed parameter systems. **82h:93013**
Kocięcki, M. Final observability criteria for linear time-lag systems. **82a:93014**
Kuhara, Shuji *See* **Fujita, Wataru; et al., 82j:93009**
Lee, E. B. (*with* Olbrot, Andrzej W.) Observability and related structural results for linear hereditary systems. **82m:93015**
Muljarčik, V. V. On solution of some observation problems in hereditary systems. **82e:93017**
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Nardone, Steven C. (*with* Aidala, Vincent J.) Observability criteria for bearings-only target motion analysis. **82e:93018**
Obinata, Goro *See* **Inooka, Hikaru, 82m:93014**
Ogunnaike, B. A. A new approach to observer design for time-delay systems. **82c:93004**
Olbrot, Andrzej W. Observability and observers for a class of linear systems with delays. **82e:93019**
See also **Lee, E. B., 82m:93015**
O'Reilly, John Minimal-order observers for linear multivariable systems with unmeasurable disturbances. **82a:93015a**
See also **Murdoch, P., 82a:93015b** *and* **Hippe, P., 82a:93015c**
Paraskevopoulos, P. N. *See* **Stavroulakis, Peter, 82i:93015**
Sadykov, F. R. Observability and parametric invariance of linear control systems with indeterminate parameters. (Russian) **82h:93012**
Sen, Prodip On the choice of input for observability in bilinear systems. **82e:93020**
Škljar, B. Š. On the observability of linear stationary systems with lumped delays. (Russian) **82a:93016**
On observability of linear systems with concentrated delays. (Russian. English summary) **82f:93016**
Sontag, Eduardo D. *See* **Hautus, M. L. J., 82e:93016**
Stavroulakis, Peter (*with* Paraskevopoulos, P. N.) Reduced-order feedback law implementation for 2D digital systems. **82i:93015**

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Baillieul, John Controllability and observability of polynomial dynamical systems. **(82j:93007)**
Barnett, Stephen *See* **Maroulas, John, (82h:15014a)** *and* **(82h:15014b)**
Bhattacharyya, Shankar Prashad *See* **de Souza, Eurice, (82h:15021)**
(Corfmat, J. P.) *See* **Katti, S. K., (82i:93008)**
Gessel, Ira M. Two theorems of rational power series. **(82h:05005)**
Kafiris, George P. *See* **Koussiouris, Trifon G., (82e:93009)**
Katti, S. K. Comments on: "Decentralized control of linear multivariable systems" [Automatica—J. IFAC **12** (1976), no. 5, 479–495; MR **55** #7477] by J. P. Corfmat and A. S. Morse. **(82i:93008)**
Koussiouris, Trifon G. (*with* Kafiris, George P.) Controllability indices, observability indices and the Hankel matrix. **(82e:93009)**
Manitius, A. Algebraic criteria of approximate controllability of retarded systems. **(82f:93010)**
Marčenko, V. M. On the controllability and observability of systems with aftereffect. (Russian. English summary) **(82i:34102)**
Maroulas, John (*with* Barnett, Stephen) Polynomials with respect to a general basis. I. Theory. **(82h:15014a)**
(*with* Barnett, Stephen) Polynomials with respect to a general basis. II. Applications. **(82h:15014b)**
(Morse, A. S.) *See* **Katti, S. K., (82i:93008)**
Neck, Reinhard Controllability and observability of dynamic economic systems. **(82i:90020)**
Olbrot, Andrzej W. (*with* Żak, Stanisław H.) Sufficient and necessary conditions for spectral controllability and observability of linear retarded systems. **(82c:49030)**
Phan Quoc Khanh A concept of optimality of degree p in the observation theory and optimal observability for convex functionals. (Polish and Russian summaries) **(82m:49055)**
Pichai, V. (*with* Sezer, Mesut E.; Šiljak, Dragoslav D.) Vulnerability of dynamic systems. **(82m:93010)**
Reinschke, K. Structurally complete systems with minimal input and output vectors. **(82m:93011)**
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Rózsa, P. *See* **Sinha, N. K., (82h:93012)**
Sezer, Mesut E. *See* **Pichai, V.; et al., (82m:93010)**
Šiljak, Dragoslav D. *See* **Pichai, V.; et al., (82m:93010)**
Sinha, N. K. (*with* Rózsa, P.) Some system theory applications of Egerváry's algorithm for transformation of a matrix to the Hermite normal form. (Russian summary) **(82h:93012)**
Solodov, A. V. (*with* Solodova, E. A.) ★Системы с переменным запаздыванием. (Russian) [Systems with variable lag] **(82f:34087)**
Solodova, E. A. *See* **Solodov, A. V., (82f:34087)**
de Souza, Eurice (*with* Bhattacharyya, Shankar Prashad) Controllability, observability and the solution of $AX-XB=C$. **(82h:15021)**
Udwadia, F. E. Controllability, observability and identification of classical linear dynamic systems. **(82i:70021)**
Żak, Stanisław H. *See* **Olbrot, Andrzej W., (82e:49030)**

93B10 Canonical structure

Antoulas, A. C. On canonical forms for linear constant systems. **82e:93021**
Jakubczyk, Bronisław (*with* Respondek, Witold) On linearization of control systems. (Russian summary) **82k:93020**
Kawakami, Masaaki *See* **Shima, Masasuke; et al., 82m:93016b**
Kita, Yoshiyuki *See* **Shima, Masasuke; et al., 82m:93016b**
Respondek, Witold *See* **Jakubczyk, Bronisław, 82k:93020**
Shima, Masasuke Theory of invariance and its applications. II. Canonical form. (Japanese. English summary) **82m:93016a**
(*with* Kawakami, Masaaki; Kita, Yoshiyuki) Theory of invariance and its applications. III. Design of observers for nonlinear systems. (Japanese. English summary) **82m:93016b**
Tkačenko, O. I. Asymptotic estimation of the state of linear nonstationary systems that do not satisfy observability criteria. (Russian) **82h:93013**

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Barnett, Stephen *See* **Maroulas, John, (82h:15014a)** *and* **(82h:15014b)**
Delchamps, David F. A note on the analyticity of the Riccati metric. **(82j:93013)**
Elkin, V. I. The algebraic approach in the theory of invariance of control systems. (Russian) **(82h:58079)**
Guo, Rong Jiang Relations between system invariants, such as the Kronecker index, and system structure and parameters. (Chinese. English summary) **(82j:93039)**
Hazewinkel, Michiel Moduli and canonical forms for linear dynamical systems. II. The topological case. **(82h:93021a)**
Moduli and canonical forms for linear dynamical systems. III. The algebraic-geometric case. **(82h:93021b)**
Krishnaprasad, P. S. On the geometry of linear passive systems. **(82i:93039)**
Maroulas, John (*with* Barnett, Stephen) Polynomials with respect to a general basis. I. Theory. **(82h:15014a)**
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Patel, Rajnikant V. Computation of matrix fraction descriptions of linear time-invariant systems. **(82h:65030)**

93B15 Realizability of systems from input-output data

Albrecht, Felix (*with* Grasse, Kevin A.; Wax, Nelson) Reproducibility of linear and nonlinear input-output systems. **82i:93016**
Aplevich, J. D. Time-domain input-output representations of linear systems. **82k:93021**
Aravena, Jorge L. (*with* Porter, William A.) Finite memory partial inverses. **82h:93014**
Avalov, G. V. Polylinear realization of input-output mappings. (Russian) **82h:93014**
Bertuzzi, Alessandro (*with* Gandolfi, Alberto; Germani, Alfredo) Causal polynomial approximation for input-output maps on Hilbert spaces. **82j:93010**
Biedermann, D. Struktur des Unterraumes der idealen Beobachtbarkeit—relativ ideal beobachtbare Systeme mit minimaler Zahl von Ausgängen. **82i:93017**
Byrnes, Christopher I. On certain problems of arithmetic arising in the realization of linear systems with symmetries. **82h:93015**
Claude, Daniel Realizations and transfer functions of discrete-time nonlinear homogeneous systems. **82h:93016**
Conte, C. *See* **Perdon, A. M., 82h:93015**
Denham, M. J. Recent results in realisation theory of systems with discrete-time bilinear and multilinear response maps. **82k:93022**
Field, A. D. (*with* Owens, D. H.) Block-tridiagonal state-space representations for a class of square invertible systems. **82j:93011**
Fliess, Michel (*with* Normand-Cyrot, Dorothée) Vers une approche algébrique des systèmes non linéaires en temps discret. **82m:93017**
Frazho, Arthur E. A shift operator approach to bilinear system theory. **82i:93018**
Gandolfi, Alberto *See* **Bertuzzi, Alessandro; et al., 82j:93010**
Garg, Kumkum (*with* Singh, Harpreet) Inversion of a 2D continued fraction. **82i:93019**
Germani, Alfredo *See* **Bertuzzi, Alessandro; et al., 82j:93010**
Gibson, J. A. (*with* Hamilton-Jenkins, M. A.) Constrained system perturbation analysis. **82c:93005**
Grasse, Kevin A. *See* **Albrecht, Felix; et al., 82i:93016**
Hamilton-Jenkins, M. A. *See* **Gibson, J. A., 82c:93005**
Hazewinkel, Michiel On invariants and moduli for linear time-varying systems. **82i:93020**
Hinamoto, Takao On the partial realization from two-dimensional input-output map. **82i:93021**
Hsu, Chin Shung (*with* Mohler, Ronald R.) On the inverse of a special class of bilinear systems. **82h:93017**
Jacenko, V. A. Logic-dynamic realization of nonlinear controlled systems. **82m:93018**
Jakubczyk, Bronisław (*with* Kaśkosz, Barbara) Realizations of Volterra series. **82c:93022**
Existence and uniqueness of nonlinear realizations. **82a:93017**
(*with* Kaśkosz, Barbara) Realizability of Volterra series with constant kernels. **82k:93023**

Kaśkosz, Barbara *See* **Jakubczyk, Bronisław, 82e:93022** *and* **82k:93023**
Lindquist, Anders (*with* Picci, Giorgio) Realization theory for multivariate Gaussian processes. II. State space theory revisited and dynamical representations of finite-dimensional state spaces. **82g:93010**
Mohler, Ronald R. *See* **Hsu, Chin Shung, 82h:93017**
Muhin, V. S. *See* **Usenko, V. V., 82g:93011**
Murray, John Lumped-distributed networks and differential-delay systems. **82h:93018**
Normand-Cyrot, Dorothée *See* **Fliess, Michel, 82m:93017**
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Pandolfi, Luciano Canonical realizations of systems with delayed controls. **82e:93023**
Paraskevopoulos, P. N. (*with* Stavroulakis, Peter) Decoupling of linear multivariable two-dimensional systems via state feedback. **82m:93019**
Perdon, A. M. (*with* Conte, C.) On canonical form for completely reachable dynamical systems. **82h:93015**
Picci, Giorgio *See* **Lindquist, Anders, 82g:93010**
Porter, William A. *See* **Aravena, Jorge L., 82h:93014**
Roth, Robert S. Techniques in the identification of deterministic systems. **82i:93022**
Singh, Harpreet *See* **Garg, Kumkum, 82i:93019**
Sontag, Eduardo D. On quasireachable realizations of a polynomial response. **82a:93018**
Staar, Jan A study of MBH-type realization algorithms. **82h:93019**
Stavroulakis, Peter *See* **Paraskevopoulos, P. N., 82m:93019**
Straka, Gunther A strictly causal state description of input-output systems. **82m:93020**
Sugie, Toshiharu *See* **Yoshikawa, Tsuneo, 82k:93025**
Tsuyoshi, Matsuo ★Realization theory of continuous-time dynamical systems. **82j:93012**
Usenko, V. V. (*with* Muhin, V. S.) Some matrix relations and their application in the solution of structural problems. (Russian) **82g:93011**
Wax, Nelson *See* **Albrecht, Felix; et al., 82i:93016**
Yasuda, Yutaka On the synthesis of model-following two-dimensional digital systems. **82k:93024**
Yoshikawa, Tsuneo (*with* Sugie, Toshiharu) Inverse systems for reproducing linear functions of inputs. **82k:93025**
Zahar'jan, S. S. Method of reduction of dimension in the investigation of multiply connected automatic control systems. (Russian. Armenian summary) **82d:93015**

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Argoun, M. B. (*with* Van de Vegte, J.) Diagonal dominance design by Bode plots and root loci. **(82c:93011)**
Bertuzzi, Alessandro (*with* Gandolfi, Alberto; Germani, Alfredo) A Weierstrass-like theorem for real separable Hilbert spaces. **(82k:46071)**
Cain, Bryan E. Inertia theory. **(82c:15001)**
Conte, G. (*with* Perdon, A. M.) On polynomial matrices and finitely generated torsion $K[z]$-modules. **(82i:93023)**
Dočev, D. Tr. (*with* Dočev, Dočo T.) Some optimization problems for a general dynamical system. (Bulgarian. Russian and English summaries) **(82g:93004a)**
Dočev, Dočo T. *See* **Dočev, D. Tr., (82g:93004a)**
Gandolfi, Alberto *See* **Bertuzzi, Alessandro; et al., (82k:46071)**
Germani, Alfredo *See* **Bertuzzi, Alessandro; et al., (82k:46071)**
Hinrichsen, Diederich (*with* Prätzel-Wolters, Dieter) Module-theoretic characterization of system equivalence in time domain. **(82f:93018)**
(*with* Prätzel-Wolters, Dieter) Solution modules and system equivalence. **(82c:93014)**
Krishnaprasad, P. S. On the geometry of linear passive systems. **(82i:93039)**
Patel, Rajnikant V. Computation of matrix fraction descriptions of linear time-invariant systems. **(82b:65030)**
Perdon, A. M. *See* **Conte, G., (82i:93023)**
Prätzel-Wolters, Dieter *See* **Hinrichsen, Diederich, (82c:93014)** *and* **(82f:93018)**
Rouchaleau, Y. Commutative algebra in system theory. **(82f:93020)**
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Vidyasagar, M. ★Input-output analysis of large-scale interconnected systems. **(82j:93027)**
Yahagi, Takashi A new algorithm for the numerical solution of linear equations and its application to dynamic systems. **(82b:65021)**

93B17 Transformation

Aleksandrov, A. G. Properties of analytically designed nonstationary linear systems. **82g:93012**
Byrnes, Christopher I. (*with* Duncan, Tyrone E.) A note on the topology of spaces of Hamiltonian transfer functions. **82f:93017**
Duncan, Tyrone E. *See* **Byrnes, Christopher I., 82f:93017**

93B20 Minimal systems representations

Bokor, J. (*with* Pető, J.) Minimal realisation procedure from partial fraction representation of a rational transfer matrix. (Russian summary) **82m:93021**
Conte, G. (*with* Perdon, A. M.) On polynomial matrices and finitely generated torsion $K[z]$-modules. **82i:93023**
Cook, P. A. (*with* Hassan, M. M. M.) The use of model following methods to simplify linear systems. **82h:93020**
Delchamps, David F. A note on the analyticity of the Riccati metric. **82j:93013**
Dervişoğlu, Ahmet *See* **Göknar, İzzet Cem, 82e:93024**
Ersov, N. N. *See* **Volkov, E. F., 82i:93024**
Göknar, İzzet Cem (*with* Dervişoğlu, Ahmet) Determination of the state transition matrix of exponentially varying systems: canonical form methods. **82e:93024**
Hassan, M. M. M. *See* **Cook, P. A., 82h:93020**
Novickiĭ, V. V. Conditions for determining the minimum number of controls and observations in linear stationary systems. (Russian) **82b:93016**
Perdon, A. M. *See* **Conte, G., 82i:93023**
Pernebo, Lars An algebraic theory for the design of controllers for linear multivariable systems. I. Structure matrices and feedforward design. **82h:93017a**
An algebraic theory for the design of controllers for linear multivariable systems. II. Feedback realizations and feedback design. **82h:93017b**
Pető, J. *See* **Bokor, J., 82m:93021**
Porter, William A. The state representation of polynomic maps. **82m:93022**
Volkov, E. F. (*with* Erlov, N. N.) Canonical forms of multidimensional systems that are autonomous with respect to groups of state variables. (Russian) **82i:93024**

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Adámek, Jiří (*with* Ehrig, Hartmut; Šedivá-Trnková, Věra) On an equivalence of system-theoretical and categorical concepts. **(82a:18001)**
Barrett, J. F. Comment: "Polynomic systems theory: a review" [Proc. IEE-D **127** (1980), no. 5, 220–228; MR 82c:93006] by P. E. Crouch. **(82m:93023)**
Crouch, P. E. Polynomic systems theory: a review. **(82c:93006)**
See also **Barrett, J. F., (82m:93023)**
Ehrig, Hartmut *See* **Adámek, Jiří; et al., (82a:18001)**
Fuhrmann, Paul A. Duality in polynomial models with some applications to geometric control theory. **(82i:93025)**
Hlobistov, V. V. On the problem of eliminating the ambiguity of phase measurements. (Russian) **(82e:92057)**
Jakubczyk, Bronisław Existence and uniqueness of realizations of nonlinear systems. **(82e:93053)**
Krause, Adam (*with* Mitek, Zbigniew) Identification of linear multivariable continuous systems from input-output data. (Polish. Russian and English summaries) **(82i:93027)**
Mitek, Zbigniew *See* **Krause, Adam, (82i:93027)**
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Šedivá-Trnková, Věra *See* **Adámek, Jiří; et al., (82a:18001)**
Shamash, Y. Truncation method of reduction: a viable alternative. **(82a:93050)**
Sinha, N. K. (*with* Rózsa, P.) Some system theory applications of Egerváry's algorithm for transformation of a matrix to the Hermite normal form. (Russian summary) **(82h:93012)**

93B25 Algebraic theory of time-invariant systems

Barrett, J. F. Comment: "Polynomic systems theory: a review" [Proc. IEE-D **127** (1980), no. 5, 220–228; MR 82c:93006] by P. E. Crouch. **82m:93023**
Crouch, P. E. Polynomic systems theory: a review. **82c:93006**
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Frost, M. G. (*with* Storey, Colin) Equivalence of matrices over $\mathbf{R}[s,z]$: a counterexample. **82m:93024**
Fuhrmann, Paul A. Duality in polynomial models with some applications to geometric control theory. **82i:93025**
Hammer, Jacob (*with* Heymann, Michael) Causal factorization and linear feedback. **82g:93013**
Hazewinkel, Michiel Moduli and canonical forms for linear dynamical systems. II. The topological case. **82h:93021a**
Moduli and canonical forms for linear dynamical systems. III. The algebraic-geometric case. **82h:93021b**
A partial survey of the uses of algebraic geometry in systems and control theory. **82j:93014**
Heymann, Michael *See* **Hammer, Jacob, 82g:93013**
Hinrichsen, Diederich (*with* Prätzel-Wolters, Dieter) Module-theoretic characterization of system equivalence in time domain. **82f:93018**
Jaffe, S. (*with* Karcanias, N.) Matrix pencil characterization of almost (A,B)-invariant subspaces: a classification of geometric concepts. **82c:93007**
Karcanias, N. *See* **Jaffe, S., 82c:93007**
Khadr, Amr S. (*with* Martin, Clyde F.) On the $\mathrm{Gl}(n)$ action on linear systems: the orbit closure problem. **82e:93025**
Martin, Clyde F. *See* **Khadr, Amr S., 82e:93025**
Molander, Per (*with* Willems, Jan C.) Synthesis of state feedback control laws with a specified gain and phase margin. **82f:93019**
Prätzel-Wolters, Dieter *See* **Hinrichsen, Diederich, 82f:93018**
Rouchaleau, Y. Commutative algebra in system theory. **82f:93020**
Sain, Michael K. *See* **Wyman, Bostwick F., 82e:93026**
Storey, Colin *See* **Frost, M. G., 82m:93024**
Willems, Jan C. *See* **Molander, Per, 82f:93019**
Wyman, Bostwick F. (*with* Sain, Michael K.) The zero module and essential inverse systems. **82e:93026**
Zotov, N. S. Computer calculation of a vector transfer function and a matrix of transformation to canonical form. (Russian) **82h:93022**

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Bruening, James T. Minimizing the degree of polynomial inverses of rectangular matrices. **(82g:15017)**
Byrnes, Christopher I. Algebraic and geometric aspects of the analysis of feedback systems. **(82e:93082)**
Friedland, Shmuel Analytic similarity of matrices. **(82b:15014)**
Lewis, Frank Leroy Riccati equation computation of supremal (F,G)-invariant and reachability subspaces. **(82k:49049)**
Rodman, Leiba On extremal solutions of the algebraic Riccati equation. **(82g:15009)**

93B30 System identification

Agafonov, S. A. (*with* Krasulina, T. P.; Fomin, V. N.) A method of stochastic approximation in the problem of identification of a linear dynamical object. (Russian. English summary) **82h:93023**
Amouroux, Marcel *See* **Courdesses, Michel; et al., 82e:93028**
Aplevich, J. D. A transducer system for the identification of railway track modulus parameters. (*See* **82g:93003**)

Belforte, Gustavo *See* **Milanese, Mario, 82h:93026**
Bhattacharya, D. K. *See* **Palanisamy, K. R., 82i:93029**
Billings, S. A. Identification of nonlinear systems—a survey. **82c:93008**
(*with* Fakhouri, S. Y.) Identification of systems containing linear dynamic and static nonlinear elements. **82m:93025**
Bohn, E. V. Estimation of continuous-time linear system parameters from periodic data. **82m:93026**
Breiner, Moshe *See* **Horowitz, Isaac, 82j:93015**
Burns, John A. (*with* Hirsch, P. D.) A difference equation approach to parameter estimation for differential-delay equations. **82c:93009**
Cehan-Racoviţă, M. Abbruchfehlerfreie zeitendliche Systemidentifikation und Resonanzfiltration im komplexen Bereich. (English and French summaries) **82i:93026**
Chung, Kan Kuei (*with* Han, K. W.; Yeh, Hsi Han) Simplification and identification of discrete transfer function via step-response matching. **82e:93027**
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El-Sherief, H. Multivariable system structure and parameter identification using the correlation method. **82h:93024**
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Fennell, R. E. *See* **Reneke, J. A., 82f:93023**
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Glover, Keith *See* **Ljung, Lennart, 82a:93020**
Goloskokov, E. G. (*with* Nikul'čenko, A. G.; Frolov, Ju. A.; Šipulina, L. V.) Regularization in the solution of an identification problem. (Russian) **82b:93018**
Graupe, D. (*with* Jain, V. K.; Salahi, J.) A comparative analysis of various least-squares identification algorithms. **82f:93021**
Guidorzi, Roberto P. Invariants and canonical forms for systems: structural and parametric identification. **82f:93022**
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Chung, Kan Kuei (*with* Yeh, Hsi Han) Simplification of discrete-time transfer functions via step-response matching. **82d:93043**
Dittrich, Gisbert Discrete dynamical systems in theoretical computer science. **82k:93045**
Doležal, Jaroslav On a certain type of discrete two-point boundary problem arising in discrete optimal control. **82m:93061**
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Gasanenko, V. A. (*with* Kozlik, G. A.; Ostapenko, V. V.; Protasov, Ĭ. V.) Planning the operational modes of a pumping station in irrigation systems using an automatic control system. (Russian) **82e:93075**
Imai, Hiroyuki *See* **Akashi, Hajime; et al., 82e:93074**
Jonckheere, Edmond A. (*with* Silverman, Leonard M.) Spectral theory of the linear-quadratic optimal control problem: a new algorithm for spectral computations. **82f:93047**
Kaczorek, Tadeusz Deadbeat control of multivariable linear time-discrete systems with amplitude constraints of control inputs. **82a:93038**
Karanam, V. R. Lower bounds on the solution of Lyapunov matrix and algebraic Riccati equations. **82m:93062**
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Kučera, Vladimir Discrete linear regulator revisited. **82k:93046**
Naidu, D. S. *See* **Rao, A. Kailasa, 82m:93065**
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Pondělíček, Bedřich On compositional and convolutional discrete systems. **82m:93064**
Protasov, Ĭ. V. *See* **Gasanenko, V. A.; et al., 82e:93075**
Rao, A. Kailasa (*with* Naidu, D. S.) Singularly perturbed boundary value problems in discrete systems. **82m:93065**
Silverman, Leonard M. *See* **Jonckheere, Edmond A., 82f:93047**
Suncev, V. N. Synthesis of discrete linear systems with feedback with incomplete information and a problem on stabilizability. (Russian) **82k:93047**
Thathachar, M. A. L. (*with* Gajendran, F.) A global convergence criterion for discrete-time multivariable adaptive systems. **82h:93048**
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Ando, Kazuaki On the practically reachable subspace of the discrete-time systems. **(82h:93005)**
Boynton, G. R. ★Mathematical thinking about politics. **(82k:90015)**
Cruz, J. B., Jr. (*with* Sawan, M. E.) Low-sensitivity optimal feedback control for linear discrete-time systems. **(82a:49031)**
Gouda, Mohamed Gawdat Analysis of real-time control systems by the model of packet nets. (*See* **82f:68003**)
Landau, Ioan Doré (*with* Lozano, R.) Unification of discrete time explicit model reference adaptive control designs. **(82j:93024)**
Lozano, R. *See* **Landau, Ioan Doré, (82j:93024)**
Mertzios, B. G. (*with* Paraskevopoulos, P. N.) Transfer function matrix of 2-D systems. **(82j:93038)**
Papageorgiou, M. (*with* Schmidt, Günter) On the hierarchical solution of nonlinear optimal control problems. **(82m:49042)**
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Sonnevend, Gy. Structural problems in the theory of bounded control for linear discrete time partially observed systems under nonstochastic bounded disturbances. **(82i:90128)**

93C57 Sampled-data

Boland, F. M. (*with* Owens, D. H.) On quantisation and other bounded nonlinearities in first-order discrete multivariable control. **82a:93039**
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Fossard, A. J. (*with* Magni, J. F.) A frequential analysis of singularly perturbed systems with state or output control. **(82f:93065)**
Kumar, S. N. *See* **Rao, P. V., (82e:49057)**
Magni, J. F. *See* **Fossard, A. J., (82f:93065)**
Movčan, L. T. Stable nonlinear sampled-data systems with constantly acting perturbations. (Russian) **(82d:93030)**
Rao, P. V. (*with* Kumar, S. N.) Optimal control of sampled data systems by geometric programming. **(82e:49057)**

93C60 Continuous-time

Bagchi, Arunabha A note on asymptotically efficient estimates of parameters in continuous-time dynamical systems. **82f:93048**
Hegner, Stephen J. Linear decomposable systems in continuous time. **82f:93049**

93C99 None of the above, but in this section

Auloge, J. Flexure oscillations of bridges—estimation of the velocity and of the acceleration by using Luenberger observers. (*See* **82g:93003**)
Beneš, Karel Modelling transfer functions with nonzero initial conditions. (Czech and Russian summaries) **82k:93048**
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Mahrenholtz, O. *See* **Bogacz, R., (82g:93003)**
Sae-Ung, S. *See* **Juang, J. N.; et al., (82g:93003)**
Yang, J. N. *See* **Juang, J. N.; et al., (82g:93003)**

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Balder, E. J. On a useful compactification for optimal control problems. **(82c:49007)**
Čyras, A. A. Principle types of optimization problems in the mechanics of deformed solids and their mathematical models. (*See* **82g:93003**)

93Dxx Stability

93D05 Ljapunov stability

Aftabizadeh, A. R. Variation of constants, vector Lyapunov functions, and comparison theorem. **82d:93044**
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Atherton, Derek P. ★Stability of nonlinear systems. **82i:93049**
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On the stability analysis of complex discrete dynamical systems. **82f:93051**
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Chen, Chi Tsong *See* **Harn, Ywh Pyng, 82j:93025**
De Maria, G. (*with* Sciavicco, L.) On the dynamic behaviour of phase-locked loops. **82m:93067**
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Haritonov, B. L. *See* **Mazko, A. G., 82f:93054**
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Malikov, A. I. Construction of Ljapunov vector-valued functions for a class of control systems. (Russian) **82f:93053**
See also **Kozlov, R. I., 82h:93049**
Marčenko, V. P. Approximate investigation of a problem of optimal stabilization of a dynamical system. (Russian) (*See* **82g:65004**)
Marchesini, G. *See* **Fornasini, E., 82e:93077**
Mazko, A. G. (*with* Haritonov, B. L.) The matrix Routh-Hurwitz problem for a class of algebraic domains. (Russian) **82f:93054**
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Morari, Manfred (*with* Stephanopoulos, George; Aris, Rutherford) Finite stability regions for large-scale systems with stable and unstable subsystems. **82d:93046a**
(*with* Stephanopoulos, George; Aris, Rutherford) Errata: "Finite stability regions for large-scale systems with stable and unstable subsystems". **82d:93046b**
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Movčan, L. T. Exponential stability of discrete control systems. **82e:93078**

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Parks, P. C. A comment on: "A note on Routh-Hurwitz determinants and integral square errors" [Internat. J. Control **31** (1980), no. 4, 807–810; MR 81h:93076] by D. J. Allwright. **82b:93027**
Pták, Vlastimil The discrete Lyapunov equation in controllable canonical form. **82f:93056**
Pustovoĭtov, M. O. Ljapunov's second method and the design of control systems. (Russian) **82k:93049**
Rajan, P. K. *See* **Reddy, C. H.; et al., (***See* **82d:93001)**
Reddy, C. H. (*with* Rajan, P. K.; Swamy, M. N. S.; Reddy, C. P.) Simplified testing procedure for very strict Hurwitz polynomials—some applications. (*See* **82d:93001)**
Reddy, C. P. *See* **Reddy, C. H.; et al., (***See* **82d:93001)**
Russell, David L. *See* **Eslami, Mansour, 82a:93042**
Ryaciotaki-Boussalis, Helen A. (*with* Boussalis, Dhemetrios) Stability of class of discrete-time interconnected systems. (*See* **82d:93001)**
Saeki, Masami (*with* Araki, Mitsuhiko; Kondo, Bunji) Local stability of composite systems—frequency-domain condition and estimate of the domain of attraction. **82f:93057**
Salah, M. M. Constructing Liapunov functions for transient stability problems. **82f:93058**
Sciavicco, L. *See* **De Maria, G., 82m:93067**
Sharma, T. N. (*with* Singh, Vimal) On the absolute stability of multivariable discrete-time nonlinear systems. **82i:93051**
Shrivastava, S. K. Stability theorems for multidimensional linear systems with variable parameters. **82g:93034**
Singh, Vimal *See* **Sharma, T. N., 82i:93051**
Sinha, A. S. C. Stability of large-scale hereditary systems with infinite retardations. **82h:93050**
Soeda, Takashi *See* **Tamaki, Shirou; et al., 82d:93047**
Stephanopoulos, George *See* **Morari, Manfred; et al., 82d:93046** *and* **Bitsoris, Georges, 82d:93046c**
Swamy, M. N. S. *See* **Reddy, C. H.; et al., (***See* **82d:93001)**
Tamaki, Shirou (*with* Ohmatsu, Shigeru; Kikuchi, Akira; Soeda, Takashi) Design of a discrete adaptive observer based on Lyapunov's direct method. **82d:93047**
Thowsen, Arild An analytic stability test for a class of time-delay systems. **82j:93026**
Tong, Hing Criterion for unboundedness in the constructive approach to the stability of matrices. (Italian summary) **82m:93070**
Vidyasagar, M. ★Input-output analysis of large-scale interconnected systems. **82j:93027**
Wang, Lian *See* **Wang, Mu Qiu; et al., 82a:93043**
Wang, Mu Qiu (*with* Wang, Lian; Zhang, Jin Yan) Equation of a phase locked loop with tangent discriminator and frequency modulation input and its generalization. **82a:93043**
Zemljakov, A. S. Construction of Ljapunov vector-valued functions for complex systems with the application of graph theory. (Russian) **82f:93059**
Zhang, Jin Yan *See* **Wang, Mu Qiu; et al., 82a:93043**
Zubov, V. I. ★Проблема устойчивости процессов управления. (Russian) [Problem of stability of control processes] **82b:93028**

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Aĭsagaliev, S. A. ★Анализ и синтез автономных нелинейных систем автоматического управления (на основе второго метода Ляпунова). (Russian) [Analysis and synthesis of autonomous nonlinear automatic control systems (on the basis of Ljapunov's second method)] **(82f:93001)**
Anapol'skiĭ, L. Ju. The comparison method in the dynamics of discrete systems. (Russian) **(82f:93046)**
Čirkova, I. A. Ljapunov stability in discontinuous dispersive dynamical systems. (Russian) **(82e:34050)**
Čurilov, A. N. The frequency theorem and the Lur'e equation. (Russian) **(82k:93014)**
Dočev, D. Tr. Stability in a general dynamical system. (Bulgarian. Russian and English summaries) **(82g:93004c)**
Fahmý, Moustafa M. *See* **Lodge, John H., (82m:94011)**
Grujić, Ljubomir T. Lyapunov-like solutions for stability problems of the most general stationary Lurie-Postnikov systems. **(82i:93055)**
Jedlička, Pavel *See* **Katětov, Miroslav, (82a:58015)**
Katětov, Miroslav (*with* Jedlička, Pavel) Catastrophe theory: coherence and application. II. (Czech) **(82a:58015)**
Korčak, A. E. Existence of generalized-homogeneous Ljapunov-Krasovskiĭ functions. (Russian) **(82k:34060)**
Kozlov, R. I. (*with* Matrosov, V. M.) Derivation of theorems of dynamic properties with Ljapunov vector functions for differential equations with perturbations. (Russian) **(82c:34061)**
Kuwahara, Michiyoshi *See* **Mori, Takehiro, (82i:93004)**
Lodge, John H. (*with* Fahmý, Moustafa M.) Stability and overflow oscillations in 2-D state-space digital filters. **(82m:94011)**
Lyčak, M. M. A new approach to investigation of the stability of nonlinear dynamic systems. **(82d:34062)**
Martinjuk, A. A. Method of integral inequalities in the theory of stability of motion. **(82d:34064)**
Matrosov, V. M. *See* **Kozlov, R. I., (82c:34061)**
Mori, Takehiro (*with* Kuwahara, Michiyoshi) Comments on Šiljak's conjecture. **(82i:93004)**
Mukhopadhyay, A. K. Stability and the transient analysis of the repulsion motor by the Kronian method of approach. **(82e:94066)**
Pai, M. A. Some mathematical aspects of power system stability by Lyapunov's method. **(82h:34065)**
Postnikov, M. M. ★Устойчивые многочлены. (Russian) [Stable polynomials] **(82k:12023)**
Pták, Vlastimil An equation of Lyapunov type. **(82h:15020)**
Skowroński, Janisław M. ★Liapunov dynamics of lumped systems. **(82k:58061)**
Thowsen, Arild The Routh-Hurwitz method for stability determination of linear differential-difference systems. **(82i:34095)**
Vaĭsbord, È. M. (*with* Žukovskiĭ, V. I.) ★Введение в дифференциальные игры нескольких лиц и их приложения. (Russian) [Introduction to differential n-person games and their applications] **(82f:90116)**
Wang, Lian (*with* Wang, Mu Qiu) Qualitative method in analysis of a phase-locked loop with tangent characteristic and frequency modulation input. (Chinese. English summary) **(82h:34056)**
Wang, Mu Qiu *See* **Wang, Lian, (82h:34056)**
Young, N. J. The solution of Lyapunov's matrix equation by a geometric method. **(82d:15008)**
Žukovskiĭ, V. I. *See* **Vaĭsbord, È. M., (82f:90116)**

93D10 Popov-type stability of feedback systems

Balas, Mark J. Nonlinear state estimation and feedback control of nonlinear and bilinear distributed parameter systems. **82g:93035**
Baliga, G. V. (*with* Rao, M. V. C.) On symmetric and unity interconnections between three nonlinear subsystems. **82a:93044**
Benhabib, R. J. (*with* Iwens, R. P.; Jackson, R. L.) Stability of large space structure control systems using positivity concepts. **82h:93051**
Bernussou, J. *See* **Grujić, Ljubomir T.; et al., 82h:93052**
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Foss, A. M. Criterion to assess stability of a "lowest wins" control strategy. **82e:93079**
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Grujić, Ljubomir T. (*with* Gentina, J. C.; Borne, P.; Burgat, C.; Bernussou, J.) Sur la stabilité des systèmes de grande dimension. Fonctions de Lyapunov vectorielles. (English summary) **82h:93052**
Necessary and sufficient Ljapunov conditions for absolute stability and the Aĭzerman conjecture. (Russian) **82j:93028**
Hiriş, Viorel (*with* Megan, Mihail) Hyperstability for linear parabolic systems. **82e:93080**
Iwens, R. P. *See* **Benhabib, R. J.; et al., 82h:93051**
Jackson, R. L. *See* **Benhabib, R. J.; et al., 82h:93051**
Jakubovič, V. A. Frequency methods of qualitative study of nonlinear systems. (Russian) **82i:93052**
Jurša, K. I. Necessary and sufficient conditions for absolute stability of systems of automatic regulation with some integral quadratic constraints. (Russian. English summary) **82m:93071**
Jury, E. I. (*with* Mansour, M.) Positivity and nonnegativity conditions of a quartic equation and related problems. **82j:93029**
Lyčak, M. M. Analysis of linear control systems with periodically changing parameters. **82a:93045**
Mansour, M. *See* **Jury, E. I., 82j:93029**
Megan, Mihail Positive systems in Hilbert spaces. **82a:93046**
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Mossaheb, S. A Nyquist type stability criterion for linear multivariable delayed systems. **82d:93048**
Postnikov, N. S. (*with* Sabaev, E. F.) Matrix comparison systems and their applications to automatic control problems. **82i:93053**
Rao, M. V. C. *See* **Baliga, G. V., 82a:93044**
Sabaev, E. F. *See* **Postnikov, N. S., 82i:93053**
Tkačenko, V. A. Analysis of the degree of stability of linear control systems. **82g:93036**

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Aĭsagaliev, S. A. ★Анализ и синтез автономных нелинейных систем автоматического управления (на основе второго метода Ляпунова). (Russian) [Analysis and synthesis of autonomous nonlinear automatic control systems (on the basis of Ljapunov's second method)] **(82f:93001)**
Bijarov, T. Equivalence of the frequency theorems of V. A. Jakubovič and V. M. Popov to a certain variational problem. (Russian) **(82g:49021)**
Corduneanu, C. Frequency domain criteria for nuclear reactor stability. **(82i:45015)**
Grujić, Ljubomir T. Stability theory of sets and singularly perturbed large-scale systems. **(82k:93006a)**
A lemma and absolute stability of nonstationary systems. **(82k:93006b)**
Mees, Alistair I. ★Dynamics of feedback systems. **(82h:34033)**
Vorotnikov, V. I. On the stability of motion relative to part of the variables for certain nonlinear systems. **(82h:34070)**
Wexler, D. On frequency domain stability for evolution equations in Hilbert spaces via the algebraic Riccati equation. **(82f:34075)**

93D15 Stabilization of systems by feedback

(Adeniyi, Victor O.) *See* **Holè, K. E.; et al., 82i:93058**
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Anderson, Brian D. O. (*with* Clements, David J.) Algebraic characterization of fixed modes in decentralized control. **82k:93050**
Balasubramanian, R. Stability of limit cycles in feedback systems containing a relay. **82e:93081**
Bell, D. J. (*with* Bryant, G. F.; Cook, P. A.; Crossley, T. R.; Denham, M. J.; Fallside, F.; Luntz, R.; MacFarlane, Alistair G. J.; Mayne, D. Q.; Munro, N.; Owens, D. H.; Rosenbrock, H. H.; Storey, Colin) ★Modern approaches to control system design. **82f:93060**
Brewer, John W. (*with* Aghabarari, Esmaeil) On the design of feedback control for relative stability. **82j:93030**
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Favini, Angelo On stabilizability of some abstract degenerate diffusion processes. **82h:93029**
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Analysis and design of nonlinear feedback systems. **(82k:93031)**
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Bardos, Claude (*with* Chen, Goong) Control and stabilization for the wave equation. III. Domain with moving boundary. **(82i:93007b)**
Brockett, Roger W. (*with* Byrnes, Christopher I.) On the algebraic geometry of the output feedback pole placement map. **(82i:93033a)**
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Bumby, Richard T. (*with* Sontag, Eduardo D.; Sussmann, H. J.; Vasconcelos, Wolmer V.) Remarks on the pole-shifting problem over rings. **(82i:93006)**
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Mori, Yasuchika (*with* Shimemura, Etsujiro) On a shift of eigenvalues of a matrix by using a solution of an algebraic Riccati equation. **(82b:15004)**
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Kovbasa, G. T. ★Синтез нестационарных многомерных систем управления при неполной информации о состоянии объекта. (Russian) [Synthesis of nonstationary

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Soliman, H. M. (*with* Darwish, M.; Fantin, J.) Decentralized and hierarchical stabilization techniques for interconnected power systems. **82h:93057**

Szczęsny, Jerzy Stability criterion for two classes of nonlinear automatic control systems. II. Systems with dead zone. (Polish. Russian and English summaries) **82h:93058**

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Araki, Mitsuhiko *See* **Saeki, Masami; et al., (82f:93057)**

Belyh, V. N. (*with* Nekorkin, V. I.) Qualitative structures and bifurcations generated by a nonlinear third-order phase synchronization equation. **(82h:58030)**

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Brayton, Robert King (*with* Tong, C. H.) Constructive stability and asymptotic stability of dynamical systems. (*See* **82e:94002**)

De Maria, G. (*with* Sciavicco, L.) On the dynamic behaviour of phase-locked loops. **(82m:93067)**

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Uniform asymptotic stability of nonlinear singularly perturbed general and large-scale systems. **(82c:34059)**

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Han, Jing Qing The disturbance-resistability of linear control systems. (Chinese. English summary) **82k:93054**

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Jumarie, Guy Space sampling effects in nonlinear distributed system stability. **82g:93039**

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(*with* Fahirov, G. A.) Stabilization of systems with quickly changing parameters with incomplete information. (Russian) (*See* **82f:90004**)

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Rjabov, B. A. (*with* Sačkov, G. P.) Requirements of structural stability and correctness in invariant control systems. (Russian) **82i:93063**

Sačkov, G. P. *See* **Rjabov, B. A., 82i:93063**

(Shanks, J. L.) *See* **Shaw, Gary A., 82a:93052**

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and J. L. Shanks. **82a:93052**

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Toom, A. L. Stable and attractive trajectories in multicomponent systems. **82i:93064**

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Constanda, Christian A generalization of the stability concept. **(82g:54065)**

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(*with* Singh, Madan G.) Stability, stabilisation and performance of multilevel controllers under structural perturbations. II. Stabilisation under any structural perturbation. **(82b:49039b)**

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secondary classifications:

(Abramjanc, T. G.) *See* **Saridis, George N., (82e:92002)**

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(Mandel', A. S.) *See* **Saridis, George N., (82e:92002)**

Saridis, George N. ★Самоорганизующиеся стохастические системы управления. (Russian) [Self-organizing control of stochastic systems] **(82e:92002)**

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Stochastic differential systems ★Stochastic differential systems. **(82b:60002)**

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Liu, K. C. Spatial stochastic systems theory and its application to fields and waves in random moving media. I. General theory. **82m:93080**

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Mohler, Ronald R. (*with* Kolodziej, Wojciech J.) An overview of stochastic bilinear control processes. **82a:93053**

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Padovan, Joseph (*with* Zeid, Ibrahim) On the transient solution of nondeterministic systems. **82i:93065**

Petrov, B. N. (*with* Ulanov, G. M.; Ul'janov, S. V.) Dynamical systems with random and fuzzy structure. (Russian) **82h:93063**

(*with* Ulanov, G. M.; Ul'janov, S. V.) Complexity of finite objects and informational control theory. (Russian) **82h:93064**

Porter, William A. On factoring the polyvariance operator. **82e:93095**

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Root, W. L. Generic models for stochastic systems. **82e:93096**

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Ulanov, G. M. *See* **Petrov, B. N.; et al., 82h:93063** *and* **82h:93064**

Ul'janov, S. V. *See* **Petrov, B. N.; et al., 82h:93063** *and* **82h:93064**

Van Schuppen, J. H. *See* **Willems, Jan C., 82h:93065**

Willems, Jan C. (*with* Van Schuppen, J. H.) Stochastic systems and the problem of state space realization. **82h:93065**

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Adomian, George (*with* Malakian, K.) A comparison of the iterative method and Picard's successive approximations for deterministic and stochastic differential equations. **(82f:60130)**

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El-Asfouri, S. A. (*with* McInnis, B. C.; Kapadia, Asha Seth) Stochastic compartmental modeling and parameter estimation with application to cancer treatment follow-up studies. **(82m:92022)**

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Germani, Alfredo (*with* Sen, Prodip) White noise solutions for a class of distributed feedback systems with multiplicative noise. **(82j:60119)**

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Kapadia, Asha Seth *See* **El-Asfouri, S. A.; et al., (82m:92022)** *and* **McInnis, B. C.; et al., (82m:92031)**

Kogan, I. M. ★Прикладная теория информации. (Russian) [Applied information theory] **(82k:94014)**

Lindgren, Georg Jumps and bumps on random roads. **(82k:70029)**

Maccone, C. Eigenfunction expansion for fractional Brownian motions. (Italian and Russian summaries) **(82f:60179)**

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93E05 Stochastic games, stochastic differential games

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Yavin, Yaakov *See* **Pachter, M., 82d:93059** *and* **82j:93043**

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Başar, Tamer Stochastic multicriteria decision problems with multilevels of hierarchy. **(82f:90005)**
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Kuržanskiĭ, A. B. Dynamic control system estimation under uncertainty conditions. I. (Russian summary) **82i:93069a**
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Matsuyama, Yasuo Mismatch robustness of linear prediction and its relationship to coding. **82k:93064**
McGiffin, P. B. (*with* Murthy, D. N. P.) Parameter estimation for autoregressive systems with missing observations. II. **82i:93071**
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Murthy, D. N. P. *See* **McGiffin, P. B., 82i:93071**
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Ocone, D. *See* **Marcus, Steven I.; et al., 82e:93101**
Ohmatsu, Shigeru (*with* Seinfeld, John H.) A unified approach to discrete-time distributed parameter estimation by the least-squares method. **82i:93073**
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Pugačev, V. S. The finite-dimensional distributions of a random process determined by a stochastic differential equation and their application to control problems. (Russian summary) **82g:93043**
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Sebald, A. V. (*with* Takenawa, T.) Optimal state estimation in the presence of deterministic perturbations of uncertain structure occurring at unknown times. **82a:93057**
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Servi, Leslie D. (*with* Ho, Yu Chi) Recursive estimation in the presence of uniformly distributed measurement noise. **82e:93102**
Shaked, U. (*with* Bobrovsky, Ben-Zion) The asymptotic minimum variance estimate of stationary linear single output processes. **82e:93103**
Shensa, M. J. Recursive least squares lattice algorithms—a geometrical approach. **82j:93046**
Sibul, Leon H. Optimum detection and estimation in stochastic transmission media. **82a:93058**
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Smith, A. F. M. (*with* Makov, Udi E.) Bayesian detection and estimation of jumps in linear systems. **82a:93059**
Söderström, Torsten (*with* Stoica, Petre) On criterion selection in prediction error identification of least-squares models. (Romanian summary) **82k:93065**
Solo, Victor The convergence of an instrumental-variable-like recursion. **82h:93070**
Sorenson, Harold W. ★Parameter estimation. **82c:93021**
Stoica, Petre On a procedure for testing the orders of time series. **82e:93104**
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Strejc, Vladimir Least squares parameter estimation. **82b:93038**
Takenawa, T. *See* **Sebald, A. V., 82a:93057**
Tartakovskiĭ, A. G. Simultaneous successive detection of signals and estimation of parameters with a priori uncertainty. **82f:93072**
Tenney, Robert R. (*with* Sandell, Nils R., Jr.) Detection with distributed sensors. **82h:93071**
Thomas, John B. *See* **Lee, Chung Chieh, 82i:93070**
Tugnait, Jitendra K. Convergence of continuous-time partitioned adaptive state estimators. **82e:93105**
Voronin, A. N. On the raising of effectiveness of statistical estimates of parameters of ergatic systems. (Russian) **82e:93106**
Warwick, K. Self-tuning regulators—a state space approach. **82e:93107**
Willman, Warren W. Edgeworth expansions in state perturbation estimation. **82e:93108**
Xu, Ke Kang A type of state estimation of reduced dimension for systems with uncertainties. (Chinese. English summary) **82h:93039**
Yamada, Takeo Comments on: "Two-level form of Kalman filter" [IEEE Trans. Automat. Control **16** (1971), 128–133; MR 45 #1630] by A. R. M. Noton. **82d:93060**
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Bagchi, Arunabha Generalized measure and likelihood functional in a continuous linear stochastic dynamical system. **(82i:60073)**
Başar, Tamer A trace minimization problem with applications in joint estimation and control under nonclassical information. **(82d:90093)**
Bismut, Jean-Michel (*with* Michel, Dominique) Structure des diffusions conditionnelles et calcul des variations. (English summary) **(82f:60170)**
Brémaud, Pierre ★Point processes and queues. **(82m:60058)**
Brillinger, David R. ★Time series. **(82a:62132)**
Dol'berg, O. M. *See* **Meleško, V. I., (82h:62123)**
Elliott, Robert J. Stochastic integration and discontinuous martingales. **(82j:60097)**
Fadeeva, E. P. Optimal linear interpolator for a class of stationary processes. (Russian) **(82h:60033)**
Gauvrit, M. *See* **Sastry, D., (82h:49014a)** *and* **(82h:49014b)**
Grigor'ev, F. N. (*with* Kurdova, E. A.) Control of observations in the interpolation of random processes. **(82i:93074)**
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Kailath, Thomas Redheffer scattering theory and linear state-space estimation problems. **(82e:94027)**
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Lipcer, R. Š. (*with* Širjaev, A. N.) ★Statystyka procesów stochastycznych. (Polish) [Statistics of random processes] **(82c:60061)**
Malahov, A. N. ★Кумулянтный анализ случайных негауссовых процессов и их преобразований. (Russian) [Cumulant analysis of non-Gaussian random processes and their transformations] **(82k:60084)**
Meleško, V. I. (*with* Dol'berg, O. M.) Design of compromise experiments in the presence of correlated noise. (Russian) **(82h:62123)**
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Nelder, J. A. Iterative weighted least squares, an algorithm for many occasions. (*See* **82f:62004**)
Otter, Pieter W. Identification and estimation of discrete state-vector models with stochastic inputs. **(82i:93082)**
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Pyt'ev, Ju. P. Suppression of false signals in the problem of resolution improvement. (Russian) **(82j:94007)**
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Sastry, D. (*with* Gauvrit, M.) Optimal simultaneous maximum a posteriori estimation of states, noise statistics and parameters. I. Algorithm. **(82h:49014a)**
(*with* Gauvrit, M.) Optimal simultaneous maximum a posteriori estimation of states, noise statistics and parameters. II. Numerical performance. **(82h:49014b)**
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Medvedev, S. Ju. (*with* Muzyčuk, O. V.) Effect of nonlinear damping on the probability characteristics of stochastic systems. **82h:93041**
Meiri, A. Zvi (*with* Porat, B.) Nonlinear estimation of generalized vector shot processes. **82h:93075**
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Sunahara, Yoshifumi (*with* Morita, Yoji) An approximate method for nonlinear filtering problems via maximal likelihood principle. **82f:93077**
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(*with* Vezzosi, Georges) Matrice de filtrage adapté éliminatrice de plusieurs brouilleurs. (English summary) **(82e:94003b)**
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(*with* Söderström, Torsten) Asymptotic behaviour of some bootstrap estimators. **82i:93085**

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Questions of modeling complex systems ★Вопросы моделирования сложных систем. (Russian) [Questions of modeling complex systems] **82i:93088a**

Systems theory ★Вопросы моделирования сложных систем. (Russian) [Questions of modeling complex systems] **82i:93088a**

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An, Hong Zhi (*with* Cheng, Ping) Asymptotic covariance of estimates of parameters for autoregressive models. (Chinese) **(82c:62116)**

Anderson, Brian D. O. *See* **Gevers, Michel R., (82g:93047)**

Bagchi, Arunabha Consistent estimates of parameters in continuous-time systems. **(82b:93036)**

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Skalmierski, Bogdan Identification of random motion and problem of crossings. (French and Russian summaries) **(82a:60076)**

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Solo, Victor The convergence of an instrumental-variable-like recursion. **(82h:93070)**

Stoica, Petre *See* **Söderström, Torsten, (82a:93022)** *and* **Tertişco, Mihai, (82m:93030)**

Tertişco, Mihai (*with* Stoica, Petre) ★Identificarea şi estimarea parametrilor sistemelor. (Romanian) [System identification and parameter estimation] **(82m:93030)**

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Young, Peter Parameter estimation for continuous-time models—a survey. **(82a:93002)**

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Askar, Murat (*with* Derin, Haluk) A recursive algorithm for the Bayes solution of the smoothing problem. **82e:93122**

Cameron, Robert Geoffrey (*with* Kouvaritakis, B.) Limit-cycle predictions in sampled data systems. **82k:93074**

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Ishii, Naohiro (*with* Iwata, Akira; Suzumura, Nobuo) Bilateral exponential smoothing of time series. **82h:93082**

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Hedrick, J. Karl *See* **Beaman, J. J., 82i:93099**
Menaldi, José-Luis The separation principle for impulse control problems. **82f:93093**
Mockus, Jonas Sufficient conditions for the convergence of one-dimensional Bayesian methods to the global minimum of continuous functions. (Russian. Lithuanian and English summaries) **82b:93057**
Razzaghi, M. Solution of the matrix Riccati equation in optimal control. **82k:93084**

secondary classifications:

Hermann, Robert (*with* Hurt, Norman E.) Some relations between system theory and statistical mechanics. **(82i:80001)**
Hurt, Norman E. *See* **Hermann, Robert, (82i:80001)**
Kacprzyk, Janusz (*with* Staniewski, Piotr) A new approach to the control of stochastic systems in a fuzzy environment. (Polish and Russian summaries) **(82h:90080)**
Staniewski, Piotr *See* **Kacprzyk, Janusz, (82h:90080)**
Zuckerman, Dror A diffusion process model for the optimal investment strategies of an R & D project. **(82k:90072)**

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secondary classifications:

(Weik, Martin H.) *See* **Dictionary: Computer, (82a:68001)**
Dictionary:
Computer ★Computer dictionary. **(82a:68001)**

94–01 Elementary exposition, textbooks

Harmuth, Henning F. ★Теория секвентного анализа. (Russian) [Sequency theory] **82a:94001**
Jablonskiĭ, S. V. ★Введение в дискретную математику. (Russian) [Introduction to discrete mathematics] **82b:94001**
Löffler, Helmut ★Information—Signal—Nachrichtenverkehr. (German) [Information—signals—communications] **82f:94001**
Robinson, Enders A. ★Physical applications of stationary time-series. **82d:94001**
(Soroko, L. M.) *See* **Harmuth, Henning F., 82a:94001**

secondary classifications:

Has'minskiĭ, R. Z. ★Stochastic stability of differential equations. **(82b:60064)**
Ignat'ev, N. K. ★Дискретизация и ее приложения. (Russian) [Discretization and its applications] **(82d:94013)**
Kunt, Murat ★Traitement numérique des signaux. (French) [Numerical treatment of signals] **(82j:94004)**
(Louvish, D.) *See* **Has'minskiĭ, R. Z., (82b:60064)**
Pierce, John R. ★An introduction to information theory. **(82j:94009)**
Swamy, M. N. S. (*with* Thulasiraman, K.) ★Graphs, networks, and algorithms. **(82j:94030)**
Thulasiraman, K. *See* **Swamy, M. N. S., (82j:94030)**
Traité d'Électricité *See* **Kunt, Murat, (82j:94004)**

94–02 Advanced exposition (research surveys, monographs, etc.)

Bojarinov, I. M. *See* **Siforov, V. I.; et al., 82e:94001**
Cybakov, B. S. *See* **Siforov, V. I.; et al., 82e:94001**
Dobrušin, R. L. *See* **Siforov, V. I.; et al., 82e:94001**
Gel'fand, S. I. *See* **Siforov, V. I.; et al., 82e:94001**
Košelev, V. N. *See* **Siforov, V. I.; et al., 82e:94001**
Samoĭlenko, Stanislav I. *See* **Siforov, V. I.; et al., 82e:94001**
Siforov, V. I. (*with* Dobrušin, R. L.; Samoĭlenko, Stanislav I.; Cybakov, B. S.; Bojarinov, I. M.; Gel'fand, S. I.; Košelev, V. N.; Štar'kov, Ju. M.) The theory of information transmission and its applications. (Russian) **82e:94001**
Štar'kov, Ju. M. *See* **Siforov, V. I.; et al., 82e:94001**

secondary classifications:

Beauchamp, K. G. (*with* Yuen, C. K.) ★Data acquisition for signal analysis. **(82j:94006)**
Butkovskiĭ, A. G. (*with* Gavrilov, M. A.; Krasnenker, A. S.; Poznjak, A. S.; Cypkin, Ja. Z.) Some problems in engineering cybernetics. (Russian) **(82e:90003)**
Cypkin, Ja. Z. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Gavrilov, M. A. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Krasnenker, A. S. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Miller, Raymond E. ★Switching theory. Vol. I, II. **(82a:94117)**
Poznjak, A. S. *See* **Butkovskiĭ, A. G.; et al., (82e:90003)**
Smith, K. C. The prospects for multivalued logic: a technology and applications view. **(82m:94051)**
Willsky, Alan S. ★Digital signal processing and control and estimation theory. **(82h:94002)**
Yuen, C. K. *See* **Beauchamp, K. G., (82j:94006)**

94–03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Good, Irving J. Studies in the history of probability and statistics. XXXVII. A. M. Turing's statistical work in World War II. **(82c:01049)**
Homenko, M. P. (*with* Vivrot, T. M.) Mutual interrelationship of the ideas of matrix theory and graph theory in their historical development. II. (Russian) **(82k:01025)**
Kahn, David On the origin of polyalphabetic substitution. **(82m:01021)**
(Turing, Alan M.) *See* **Good, Irving J., (82c:01049)**
Vivrot, T. M. *See* **Homenko, M. P., (82k:01025)**
Studies in the history of probability and statistics *See* **Good, Irving J., (82c:01049)**

94–04 Explicit machine computation and programs (not the theory of computation or programming)

94–06 Proceedings, conferences, etc.

(Cartianu, Gh.) *See* **Numerical transmission, data processing and computerized process control, 82a:94003**
(de Coulon, F.) *See* **Signal processing : theories and applications, 82g:94001**
(Garmaš, V. A.) *See* **Methods of information transmission and processing, 82a:94002**
(Inose, H.) *See* **Evolutions in computer communications, 82m:94001**
(Jaroslavskiĭ, L. P.) *See* **Digital processing of signals and its applications, 82h:94001**
(Kunt, Murat) *See* **Signal processing : theories and applications, 82g:94001**
(Lainiotis, Demetrios G.) *See* **Conference: Information Sciences and Systems, 82d:94002**
(Nicolau, Edmond) *See* **Numerical transmission, data processing and computerized process control, 82a:94003**
(Pinsker, M. S.) *See* **Methods of information transmission and processing, 82a:94002**
(Tzannes, Nicolaos S.) *See* **Conference: Information Sciences and Systems, 82d:94002**
Advances in communications ★Second International Conference on Information Sciences and Systems. Vol. I. **82d:94002**
Computer science ★1979 International Symposium on Circuits and Systems. **82e:94002**
Computerized process control ★Transmiterea numerică, prelucrarea datelor şi conducerea proceselor cu ajutorul calculatoarelor. (Romanian) [Numerical transmission, data processing and computerized process control] **82a:94003**
Conference:
Computer Communication ★Evolutions in computer communications. **82m:94001**
European, Signal Processing ★Signal processing: theories and applications. **82g:94001**
Information Sciences and Systems ★Second International Conference on Information Sciences and Systems. Vol. I. **82d:94002**
Data processing ★Transmiterea numerică, prelucrarea datelor şi conducerea proceselor cu ajutorul calculatoarelor. (Romanian) [Numerical transmission, data processing and computerized process control] **82a:94003**
Digital processing of signals and its applications ★Цифровая обработка сигналов и ее применения. (Russian) [Digital processing of signals and its applications] **82h:94001**
Evolutions in computer communications ★Evolutions in computer communications. **82m:94001**
IEEE Symposium:
Circuits and Systems ★1979 International Symposium on Circuits and Systems. **82e:94002**
Information processing ★Методы передачи и обработки информации. (Russian) [Methods of information transmission and processing] **82a:94002**
Information sciences ★Second International Conference on Information Sciences and Systems. Vol. I. **82d:94002**
Kyoto ★Evolutions in computer communications. **82m:94001**
Lausanne ★Signal processing: theories and applications. **82g:94001**
Methods of information transmission and processing ★Методы передачи и обработки информации. (Russian) [Methods of information transmission and processing] **82a:94002**
Numerical transmission, data processing and computerized process control ★Transmiterea numerică, prelucrarea datelor şi conducerea proceselor cu ajutorul calculatoarelor. (Romanian) [Numerical transmission, data processing and computerized process control] **82a:94003**
Patras ★Second International Conference on Information Sciences and Systems. Vol. I. **82d:94002**
Signal processing : theories and applications ★Signal processing: theories and applications. **82g:94001**
Tokyo ★1979 International Symposium on Circuits and Systems. **82e:94002**

secondary classifications:

(García, Oscar N.) *See* **Proceedings: International Conference on Parallel Processing, (82b:68024)**
(Longo, Giuseppe) *See* **Information theory approach to communications, (82d:94024)**
(Lupanov, O. B.) *See* **Cybernetics collection, (82d:68001)**
(Medley, Don) *See* **Conference: AFIPS, Computer, (82f:68004)**
(Merwin, Richard E.) *See* **Conference: AFIPS, Computer, (82f:68003)**
(Šamfarova, O. V.) *See* **Systems for control of networks, (82d:94048)**
Anaheim, Calif. ★1980 National Computer Conference. **(82f:68004)**
Bellaire, Mich. ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
Computer science ★1979 National Computer Conference. **(82f:68003)**
★1980 National Computer Conference. **(82f:68004)**
Conference:
AFIPS, Computer ★1979 National Computer Conference. **(82f:68003)**
★1980 National Computer Conference. **(82f:68004)**
Parallel Processing ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
Cybernetics collection ★Кибернетический сборник. Новая серия. Вып. 17. (Russian) [Cybernetics collection. New series. No. 17] **(82d:68001)**
Information theory approach to communications ★The information theory approach to communications. **(82d:94024)**
Networks ★Системы управления сетями. (Russian) [Systems for control of networks] **(82d:94048)**
New York ★1979 National Computer Conference. **(82f:68003)**
Parallel processing ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
Proceedings:
International Conference on Parallel Processing ★Proceedings of the 1979 International Conference on Parallel Processing. **(82b:68024)**
Summer School:
CISM, Information Theory Approach to Communications ★The information theory approach to communications. **(82d:94024)**
Systems for control of networks ★Системы управления сетями. (Russian) [Systems for control of networks] **(82d:94048)**

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secondary classifications:

(de Coulon, F.) *See* **Signal processing : theories and applications, (82g:94001)**
(Kunt, Murat) *See* **Signal processing : theories and applications, (82g:94001)**
(Lainiotis, Demetrios G.) *See* **Conference: Information Sciences and Systems, (82d:93003)**
(Tzannes, Nicolaos S.) *See* **Conference: Information Sciences and Systems, (82d:93003)**
Applications of information and control systems ★Second International Conference on Information Sciences and Systems. Vol. III. **(82d:93003)**
Conference:
European, Signal Processing ★Signal processing: theories and applications. **(82g:94001)**
Information Sciences and Systems ★Second International Conference on Information Sciences and Systems. Vol. III. **(82d:93003)**
Information sciences ★Second International Conference on Information Sciences and Systems. Vol. III. **(82d:93003)**
Lausanne ★Signal processing: theories and applications. **(82g:94001)**
Patras ★Second International Conference on Information Sciences and Systems. Vol. III. **(82d:93003)**
Signal processing : theories and applications ★Signal processing: theories and applications. **(82g:94001)**

94A05 Communication theory [See also 60G35.]

Agrawal, Bhagwati P. (*with* Shenoi, Kishan) *m*-adic (polyadic) invariance and its applications. **82d:94003**
Aĭzenberg, N. N. (*with* Trofimljuk, O. T.) Shift, convolution, and correlation function of discrete signals in an arbitrary basis. (Russian) **82b:94003**
Allen, Jont B. *See* **Yarlagadda, Rao, 82m:94019**
Aly, Samy A. H. (*with* Fahmý, Moustafa M.) Symmetry in two-dimensional rectangularly sampled digital filters. **82f:94002**
Angelo, E. J., Jr. A tutorial introduction to digital filtering. **82j:94001**
Arquès, Pierre-Yves Matrice de filtrage de Wiener éliminatrice de plusieurs brouilleurs. (English summary) **82e:94003a**
(*with* Vezzosi, Georges) Matrice de filtrage adapté éliminatrice de plusieurs brouilleurs. (English summary) **82e:94003b**
Barone, Piero (*with* Regoliosi, Giuseppe) ★Una procedura di calcolo per la scelta automatica e la valutazione in linea di un modello lineare, appartenente a una classe data, relativo al rumore additivo presente in dati generati da una strumentazione elettronica. (Italian) [A calculation procedure for automatic selection and on-line estimation of a linear model belonging to a given class, relative to the additive noise present in data generated by an electronic instrument] **82m:94002**
Bertrán-Salvans, M. *See* **Casares-Giner, V.; et al., 82m:94005**
Bobrovsky, Ben-Zion (*with* Zakai, Moshe) On lower bounds for the nonlinear filtering problem. **82a:94004**
Boguslavskiĭ, L. B. (*with* Gelenbe, Erol) A communication protocol and a problem of coupled queues. (Polish and Russian summaries) **82e:94004**
Bongiovanni, G. (*with* Coppersmith, D.; Wong, C. K.) An optimum time slot assignment algorithm for an SS/TDMA system with variable number of transponders. **82d:94004**
Borchi, E. (*with* Poli, M.) The two-dimensional minimum-bias window function. (German and French summaries) **82m:94003**
Cahana, D. *See* **Stark, Henry; et al., 82e:94012**
Cantoni, Antonio (*with* Evans, Robin J.; Kwong, Ken) Adaptive equalization algorithms for optimization of a generalized mean square cost. **82h:94002**
Capello, Peter R. (*with* Steiglitz, Kenneth) Digital signal processing applications of systolic algorithms. **82m:94004**
Casares-Giner, V. (*with* Bertrán-Salvans, M.; García-López, J. A.) Asymptotical inversion of nonsingular digital symmetrical polynomial transfer functions. (German and French summaries) **82m:94005**
Chakrabarti, Satyabrata (*with* Mitra, Sanjit K.) Corrections to: "Decision methods and realization of 2-D digital filters using minimum number of delay elements" [IEEE Trans. Circuits and Systems **27** (1980), no. 8, 657–666; MR 81g:94011]. **82d:94005**
Cheetham, B. M. G. *See* **Hughes, P. M., 82c:94001**
Chen, Wen Liang (*with* Jing, Ming Hwa) A systematic approach to design the reconfiguration scheme of fault-tolerant systems. **82m:94006**
Ciochină, Silviu Pulse shaping networks for data transmission. (Romanian. English summary) **82d:94006**
Clarke, R. J. Relation between the Karhunen-Loève and cosine transforms. **82m:94007**
Coppersmith, D. *See* **Bongiovanni, G.; et al., 82d:94004**
Delbrouck, L. E. N. A unified approximate evaluation of congestion functions for smooth and peaky traffics. **82a:94005**
Delosme, J.-M. (*with* Morf, Martin) Mixed and minimal representations for Toeplitz and related systems. (*See* **82d:93001**)
(*with* Genin, Yves V.; Morf, Martin; Van Dooren, Paul M.) Σ-contractive embeddings and interpretation of some algorithms for recursive estimation. (*See* **82d:93001**)
Durán García, J. J. *See* **Rubio, A. J., 82m:94016**
Ehrenberg, J. E. (*with* Hernandez, E. N.) Covariance-invariant digital filtering—a better digital processing technique for ground motion studies. **82m:94008**
Einarsson, Göran A robust adaptive quantizer with extended dynamic range. **82e:94005**
Ephremides, Anthony Optical communications. (*See* **82d:94024**)
Eswaran, C. (*with* Ganapathy, V.) On the stability of digital filters designed using the concept of generalized-immittance convertor. **82e:94006**
Evans, Robin J. *See* **Cantoni, Antonio; et al., 82h:94002**
Eweda, Eweda (*with* Macchi, Odile) Convergence du filtrage adaptatif à pas décroissant en présence d'observations corrélées. (English summary) [Convergence of adaptive filtering with decreasing step-size in the presence of correlated observations] **82k:94001**
Fahmý, Moustafa M. *See* **Aly, Samy A. H., 82f:94002** *and* **Lodge, John H., 82m:94011**
Fairman, Frederick W. *See* **Hinamoto, Takao, 82h:94003**
Farden, David C. Tracking properties of adaptive signal processing algorithms. **82e:94007**
Fernando, K. V. M. (*with* Nicholson, H.) Karhunen-Loève expansion with reference to singular-value decomposition and separation of variables. **82j:94002**
Fettweis, Alfred Principles of complex wave digital filters. **82d:94007**
Forster, Alfred Aspects particuliers des tests optimaux d'hypothèses multiples en détection active. Fonction d'ambiguïté généralisée intervenant dans les systèmes de détection active utilisant les tests optimaux de Neyman-Pearson. (English summary) **82d:94008**
Ganapathy, V. *See* **Eswaran, C., 82e:94006**
García-López, J. A. *See* **Casares-Giner, V.; et al., 82m:94005**
Gelenbe, Erol *See* **Boguslavskiĭ, L. B., 82e:94004**
Genin, Yves V. *See* **Delosme, J.-M.; et al.,** (*See* **82d:93001**)
Gerbrands, Jan J. On the relationships between SVD, KLT and PCA. **82k:94002**
Goodwin, Graham C. *See* **Hoang, D. B., 82i:94001**
Györfi, László The rate of convergence of k_n-NN regression estimates and classification rules. **82e:94008**
Habibi-Ashrafi, Farrokh *See* **Mendel, Jerry M., 82a:94006**
Harisov, V. N. *See* **Tihonov, V. I., 82d:94010**
Heinen, James A. *See* **Reyer, Steven E., 82f:94004**
Henderson, T. L. Geometric methods for determining system poles from transient response. **82k:94003**
Hernandez, E. N. *See* **Ehrenberg, J. E., 82m:94008**
Hershey, John E. *See* **Yarlagadda, Rao, 82k:94005**
Higuchi, Tatsuo (*with* Kobayashi, Kohji) Design and implementation of digital filter based on ternary threshold gates. **82d:94009**
Hinamoto, Takao (*with* Fairman, Frederick W.) Separable-denominator state-space realization of two-dimensional filters using a canonic form. **82h:94003**
Hoang, D. B. (*with* Goodwin, Graham C.) Lower bound on one shot error probability. **82i:94001**
Honig, Michael L. (*with* Messerschmitt, David G.) Convergence properties of an adaptive digital lattice filter. **82e:94009**
Hu, N. C. Frequency response of multidimensional linear phase FIR digital filters. (*See* **82d:94002**)
Multidimensional digital windows. (*See* **82d:94002**)
Huang, Chou *See* **Taylor, Fredrick J., 82m:94018**
Hughes, P. M. (*with* Cheetham, B. M. G.) Analysis of noise, sensitivity and dynamic range in digital filters using multiplier extraction approach. **82c:94001**
Ihsanov, Š. M. (*with* Sadov, D. D.) A control problem in radio communications. (Russian) **82b:94004**
Ingle, Vinay K. *See* **Woods, John W., 82d:94011**
Isaev, K. V. On current planning of a testing signal bounded in amplitude for identification of a certain class of dynamic objects. **82m:94009**
Jing, Ming Hwa *See* **Chen, Wen Liang, 82m:94006**
Kanygin, V. S. Estimate of the coefficients of a discrete transformation of a generalized Vilenkin-Christenson-Paley function. (Russian) **82k:94004**
Kazlauskas, Kazys Adaptive filtering by two-dimensional digital filters. (Russian. Lithuanian and English summaries) **82j:94003**
Kobayashi, Kohji *See* **Higuchi, Tatsuo, 82d:94009**
Kunt, Murat ★Traitement numérique des signaux. (French) [Numerical treatment of signals] **82j:94004**
Kwong, Ken *See* **Cantoni, Antonio; et al., 82h:94002**
Lawrence, Victor P. *See* **Mitra, Debasis, 82h:94004**

Lawton, Wayne Uniqueness results for the phase-retrieval problem for radial functions. **82m:94010**
Lienard, J. Méthodes numériques de réalisation d'un opérateur compression de temps. (English and German summaries) **82e:94010**
Lodge, John H. (*with* Fahmý, Moustafa M.) Stability and overflow oscillations in 2-D state-space digital filters. **82m:94011**
Macchi, Odile *See* **Eweda, Eweda, 82k:94001**
Makhoul, John On the eigenvectors of symmetric Toeplitz matrices. **82m:94012**
McEliece, Robert J. Practical codes for photon communication. **82m:94013**
Mendel, Jerry M. (*with* Habibi-Ashrafi, Farrokh) A survey of approaches to solving inverse problems for lossless layered media systems. **82a:94006**
Messerschmitt, David G. *See* **Honig, Michael L., 82e:94009**
Mitra, Debasis (*with* Lawrence, Victor B.) Controlled rounding arithmetics, for second-order direct-form digital filters, that eliminate all self-sustained oscillations. **82h:94004**
Mitra, Sanjit K. *See* **Chakrabarti, Satyabrata, 82d:94005**
Mittal, Kumud K. (*with* Venetsanopoulos, Anastasios N.) On the dynamic control of the Urn scheme for multiple access broadcast communication systems. **82f:94003**
Mitter, Sanjoy K. (*with* Young, Stephen K.) Quantum estimation theory. (*See* **80m:49002**)
Morf, Martin *See* **Delosme, J.-M., (*See* 82d:93001)** *and* **(*See* 82d:93001)**
Morris, Joel M. Some results on robust detection for known signals and additive unknown-mean amplitude-bounded noise. **82c:94002**
Nicholson, H. *See* **Fernando, K. V. M., 82j:94002**
Ogier, Richard G. (*with* Wong, Eugene) Recursive linear smoothing of two-dimensional random fields. **82i:94002**
Oppenheim, Alan V. *See* **Quatieri, Thomas F., Jr., 82m:94014**
Pei, Soo Chang (*with* Wu, Ja Ling) Fast biased polynomial transforms for two-dimensional convolutions. **82h:94005**
Pelkowitz, Lionel Frequency domain analysis of wraparound error in fast convolution algorithms. **82e:94011**
Pleskač, P. M. The value of operative information. (Russian) **82c:94003**
Poli, M. *See* **Borchi, E., 82m:94003**
Popović, M. V. *See* **Raković, Branko D., 82b:94005**
Quatieri, Thomas F., Jr. (*with* Oppenheim, Alan V.) Iterative techniques for minimum phase signal reconstruction from phase or magnitude. **82m:94014**
Raković, Branko D. (*with* Popović, M. V.) A predistortion technique for increasing the element tolerances in elliptic and general parameter filters. **82b:94005**
Rao, V. V. *See* **Reddy, D. Raghu Ram, 82m:94015**
Reddy, D. Raghu Ram (*with* Rao, V. V.) Two-dimensional chirp z-transform. (German and French summaries) **82m:94015**
Regoliosi, Giuseppe *See* **Barone, Piero, 82m:94002**
Reyer, Steven E. (*with* Heinen, James A.) Quantization noise analysis of a general digital filter. **82f:94004**
Roddy, D. A method of using Simpson's rule in the DFT. **82f:94005**
Rubio, A. J. (*with* Durán Garcia, J. J.) FIR digital filters for signals in delta-modulated form. **82m:94016**
Sadov, D. D. *See* **Ihsanov, Š. M., 82h:94004**
Shenoi, Kishan *See* **Agrawal, Bhagwati P., 82d:94003**
Stark, Henry (*with* Cahana, D.; Webb, Heywood E., Jr.) Restoration of arbitrary finite-energy optical objects from limited spatial and spectral information. **82e:94012**
Steiglitz, Kenneth *See* **Capello, Peter R., 82m:94004**
Stuller, John A. Generalized running discrete transforms. **82m:94017**
Tamvacis, C. Filtration of separable finite discrete signals. **82b:94006**
Taylor, Fredrick J. (*with* Huang, Chou) A comparison of DFT algorithms using a residue architecture. **82m:94018**
Large moduli multipliers for signal processing. **82e:94013**
Therrien, Charles W. Relations between 2-D and multichannel linear prediction. **82e:94014**
Thrall, Anthony D. Some properties of least-squares digital filters. **82c:94004**
Tihonov, V. I. (*with* Harisov, V. N.) Optimum reception of randomly delayed discrete signals. **82d:94010**
Trofimljuk, O. T. *See* **Aizenberg, N. N., 82h:94003**
Unbehauen, Rolf Recursive digital low-pass filters with predetermined phase or group delay and Chebyshev stopband attenuation. **82h:94006**
Van Dooren, Paul M. *See* **Delosme, J.-M.; et al., (*See* 82d:93001)**
Venetsanopoulos, Anastasios N. *See* **Mittal, Kumud K., 82f:94003**
Vezzosi, Georges *See* **Arquès, Pierre-Yves, 82e:94003b**
Webb, Heywood E., Jr. *See* **Stark, Henry; et al., 82e:94012**
Willsky, Alan S. ★Digital signal processing and control and estimation theory. **82h:94002**
Wong, C. K. *See* **Bongiovanni, G.; et al., 82d:94004**
Wong, Eugene *See* **Ogier, Richard G., 82i:94002**
Woods, John W. (*with* Ingle, Vinay K.) Kalman filtering in two dimensions: further results. **82d:94011**
Wu, Ja Ling *See* **Pei, Soo Chang, 82h:94005**
Yao, Kung Quadratic-exponential moment error bounds for digital communication systems. **82a:94007**
Yarlagadda, Rao (*with* Hershey, John E.) Architecture of the fast Walsh-Hadamard and fast Fourier transforms with charge transfer devices. **82k:94005**
(*with* Allen, Jont B.) Aliasing errors in short-time analysis. (German and French summaries) **82m:94019**
Yip, P. C. On a conjecture for the design of low-pass recursive filters. **82i:94003**
Young, Stephen K. *See* **Mitter, Sanjoy K., (*See* 80m:49002)**
Zakai, Moshe *See* **Bobrovsky, Ben-Zion, 82a:94004**
Traité d'Électricité *See* **Kunt, Murat, 82j:94004**

secondary classifications:

Aho, A. V. (*with* Ullman, Jeffrey D.; Yannakakis, Mihalis) Modeling communications protocols by automata. (*See* **82a:68004**)
Bertero, M. (*with* de Mol, Ch.; Viano, G. A.) The stability of inverse problems. **(82j:65068)**
Bose, N. K. (*with* Guiver, John P.) Multivariate polynomial positivity invariance under coefficient perturbation. **(82a:93026)**
Bucy, R. S. (*with* Senne, K. D.) Nonlinear filtering algorithms for parallel and pipeline machines. (*See* **82k:68003**)
Calenko, M. Š. Philosophy and mathematics of the modelling of data processing processes (on the example of relational models of data bases). (Russian) **(82a:68028)**
Chittineni, C. B. On the extraction of features from slowly wandering patterns. **(82h:68116)**
Cohen, Guy Partage de l'information entre systèmes stochastiques a priori indépendants. (English summary) **(82i:93092b)**
Čurkin, V. I. Optimal distribution of information in communications networks. (Russian) **(82e:94073)**
Davisson, Lee D. (*with* McEliece, Robert J.; Pursley, Michael B.; Wallace, Mark S.) Efficient universal noiseless source codes. **(82e:94038)**
Falin, G. I. Switching systems with allowance for repeated calls. **(82g:60130)**
Friedlander, Benjamin *See* **Lee, Daniel T. L.; et al., (82e:93100)**
Gries, David *See* **Levin, Gary Marc, (82h:68013)**
Guiver, John P. *See* **Bose, N. K., (82a:93026)**
Harmuth, Henning F. ★Теория секвентного анализа. (Russian) [Sequency theory] **(82a:94001)**
Hataji, Akira *See* **Nakamori, Seiichi, (82m:93097)**
(Haykin, Simon) *See* **Nonlinear methods of spectral analysis, (82j:62069)**
Helstrom, Carl W. Detection of quantum signals by a mismatched receiver. **(82c:81054)**
Heute, Ulrich Results of a deterministic analysis of FFT coefficient errors. (German and French summaries) **(82k:65077)**
Kailath, Thomas (*with* Ljung, Lennart; Morf, Martin) Generalized Krein-Levinson equations for efficient calculation of Fredholm resolvents of nondisplacement kernels. **(82m:45003)**
Keats, R. G. A note on: *Dilogarithms and associated functions* [MacDonald, London, 1958; MR **21** #4264] by L. Lewin. **(82h:33020a)**
Erratum: "A note on: *Dilogarithms and associated functions*". **(82h:33020b)**
Kel'bert, M. Ja. The existence of the limiting distributions in some networks of communication of messages. **(82e:60161)**
Kindermann, Ross P. (*with* Snell, J. Laurie) ★Markov random fields and their applications. **(82j:60183)**
Kushner, Harold J. Diffusion approximations to output processes of nonlinear systems with wide-band inputs and applications. **(82h:60072)**
Lee, Daniel T. L. (*with* Morf, Martin; Friedlander, Benjamin) Recursive least squares ladder estimation algorithms. **(82e:93100)**
Levin, Gary Marc (*with* Gries, David) A proof technique for communicating sequential processes. **(82h:68013)**
(Lewin, L.) *See* **Keats, R. G., (82h:33020a)**
Liu, Bede *See* **Munson, David C., Jr., (82f:65132)**
Ljung, Lennart *See* **Kailath, Thomas; et al., (82m:45003)**
Löffler, Helmut ★Information—Signal—Nachrichtenverkehr. (German) [Information—signals—communications] **(82f:94001)**
Mahalanabis, A. K. (*with* Prasad, Surendra; Mohandas, K. P.) A fast optimal deconvolution algorithm for real seismic data using Kalman predictor model. **(82j:86003)**
Malahov, A. N. ★Кумулянтный анализ случайных негауссовых процессов и их преобразований. (Russian) [Cumulant analysis of non-Gaussian random processes and their transformations] **(82k:60084)**
Malinov, V. A. (*with* Šil'man, S. V.) Adaptive estimation of the trend of parameters of complex systems. **(82k:93063)**
McEliece, Robert J. *See* **Davisson, Lee D.; et al., (82e:94038)**
Mehta, F. C. Generalized sampling expansions of signals for finite Hankel and other transforms. **(82m:44005)**
Mohandas, K. P. *See* **Mahalanabis, A. K.; et al., (82j:86003)**
de Mol, Ch. *See* **Bertero, M.; et al., (82j:65068)**
Moore, Bruce C. Principal component analysis in linear systems: controllability, observability, and model reduction. **(82m:93009)**
Morf, Martin *See* **Lee, Daniel T. L.; et al., (82e:93100)** *and* **Kailath, Thomas; et al., (82m:45003)**
Móri, Tamás F. On the asymptotic network delay in a model of packet switching. **(82e:94070)**
Munson, David C., Jr. (*with* Liu, Bede) Floating point roundoff error in the prime factor FFT. **(82f:65132)**
Nakamori, Seiichi (*with* Hataji, Akira) Derivation of linear optimal fixed-interval smoothing algorithm using covariance information. I, II. **(82m:93097)**
Ôhashi, Katsuhiro Central limit theorems for lacunary Walsh series and an application. **(82k:42015)**
Padet, Colette Sur une théorie informationnelle de l'observation pour des événements de nature probabiliste. (English summary) **(82e:94036)**
Petrov, B. N. (*with* Ulanov, G. M.; Ul'janov, S. V.) Informativeness of signals and compression of controlled information processes. (Russian) **(82g:94003)**
Prasad, Surendra *See* **Mahalanabis, A. K.; et al., (82j:86003)**
Pursley, Michael B. *See* **Davisson, Lee D.; et al., (82e:94038)**
Schmitt, Klaus Oscillations in nonlinear differential-delay equations. **(82h:34103)**
Schroeder, M. R. Modulation transfer functions: definition and measurement. (German and French summaries) **(82k:94010)**
Senne, K. D. *See* **Bucy, R. S., (*See* 82k:68003)**
Šil'man, S. V. *See* **Malinov, V. A., (82k:93063)**
Snell, J. Laurie *See* **Kindermann, Ross P., (82j:60183)**
(Soroko, L. M.) *See* **Harmuth, Henning F., (82a:94001)**
Ulanov, G. M. *See* **Petrov, B. N.; et al., (82g:94003)**
Ul'janov, S. V. *See* **Petrov, B. N.; et al., (82g:94003)**
Ullman, Jeffrey D. *See* **Aho, A. V.; et al., (*See* 82a:68004)**
Viano, G. A. *See* **Bertero, M.; et al., (82j:65068)**

Wallace, Mark S. *See* **Davisson, Lee D.; et al., (82e:94038)**
Yamamoto, Hirosuke Source coding theory for cascade and branching communication systems. **(82e:94043)**
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Nonlinear methods of spectral analysis ★Nonlinear methods of spectral analysis. **(82j:62069)**
Spectral analysis ★Nonlinear methods of spectral analysis. **(82j:62069)**

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Agranov, G. A. (*with* Zaĭceva, A. M.; Korennaja, L. N.; Sobolev, V. S.) Distribution of energy in the plane of a transformant. (Russian) **82a:94008**
Aĭzenberg, N. N. (*with* Semirot, M. S.) Convolution of multivalent discrete signals in an arbitrary basis. (Russian) **82j:94005**
Azimi Sadjadi, M. R. (*with* King, Robert A.) Truncation error in 2-D block mode filtering. **82d:94012**
Cabot, Richard C. A note on the application of the Hilbert transform to time delay estimation. **82e:94015**
Chen, Chih Fan *See* **Kwong, C. P., 82h:94007**
Corsini, Paolo (*with* Frosini, Graziano) Correction to: "Properties of the multidimensional generalized discrete Fourier transform" [IEEE Trans. Comput. **28** (1979), no. 11, 819–830; MR 80m:94007]. **82a:94009**
Frosini, Graziano *See* **Corsini, Paolo, 82a:94009**
Hayes, Monson H. (*with* Lim, Jae S.; Oppenheim, Alan V.) Signal reconstruction from phase or magnitude. **82a:94010**
Hostetter, Gene H. Generalized interpolation of continuous-time signal samples. **82m:94020**
Huang, Chao H. *See* **Taylor, Fredrick J., 82a:94013**
Ibragimov, A. S. Orthogonal and quasiorthogonal numerical sequences with minimal aperiodicity. (Russian) **82e:94016**
Ignat'ev, N. K. ★Дискретизация и ее приложения. (Russian) [Discretization and its applications] **82d:94013**
Janicke, Ortrud Konzeption eines reellwertigen, sequentiellen Automaten über die Walsh-Transformation. **82a:94011**
Keys, R. G. An algorithm for computing the Nth roots of unity in bit-reversed order. **82a:94012**
King, Robert A. *See* **Azimi Sadjadi, M. R., 82d:94012**
Korennaja, L. N. *See* **Agranov, G. A.; et al., 82a:94008**
Kwong, C. P. (*with* Chen, Chih Fan) The convergence properties of block-pulse series. **82h:94007**
Lim, Jae S. *See* **Hayes, Monson H.; et al., 82a:94010**
Moharir, P. S. (*with* Varma, S. K.) A new class of orthonormal transforms. **82e:94017**
Oppenheim, Alan V. *See* **Hayes, Monson H.; et al., 82a:94010**
Portnoff, Michael R. Short-time Fourier analysis of sampled speech. **82e:94018**
Time-scale modification of speech based on short-time Fourier analysis. **82e:94019**
Semirot, M. S. *See* **Aĭzenberg, N. N., 82j:94005**
Sobolev, V. S. *See* **Agranov, G. A.; et al., 82a:94008**
Sun, Yü I Solution of convolution integrals and correlation functions via block pulse functions. (Chinese summary) **82e:94020**
Taylor, Fredrick J. (*with* Huang, Chao H.) A floating-point residue arithmetic unit. **82a:94013**
Varma, S. K. *See* **Moharir, P. S., 82e:94017**
Zaiceva, A. M. *See* **Agranov, G. A.; et al., 82a:94008**

secondary classifications:

Anderson, Brian D. O. *See* **Potter, J. M., (82e:94029)**
Barrett, J. F. Formula for output autocorrelation and spectrum of a Volterra system with stationary Gaussian input. **(82a:93054)**
Delsarte, Philippe (*with* Genin, Yves V.; Kamp, Yves G.) Planar least-squares inverse polynomials. II. Asymptotic behavior. **(82a:93064)**
Diaconis, Persi Average running time of the fast Fourier transform. **(82f:68046)**
Eweda, Eweda *See* **Macchi, Odile, (82c:93022)**
Genin, Yves V. *See* **Delsarte, Philippe; et al., (82a:93064)**
Honda, Ikuji Abstract Bennett's formula for a class of nonstationary linear stochastic processes. **(82g:60036)**
(Jaroslavskiĭ, L. P.) *See* **Digital processing of signals and its applications, (82h:94001)**
Kamp, Yves G. *See* **Delsarte, Philippe; et al., (82a:93064)**
Kutnyi, G. D. A combinatorial scheme for decoding on the principle of estimative filtration. (Russian) **(82a:94077)**
Macchi, Odile (*with* Eweda, Eweda) Convergence du filtrage adaptatif à pas constant en présence d'observations corrélées. (English summary) **(82c:93022)**
Potter, J. M. (*with* Anderson, Brian D. O.) Time-limited time-invariant Wiener filtering. **(82e:94029)**
Schipp, Ferenc Fast Fourier transform and conditional expectation. **(82a:42008)**
Šer, A. P. Some properties of systems of linearly distorted Walsh functions. (Russian) **(82h:42034)**
Yousif, Salah M. Generation of Fibonacci numbers by digital filters. **(82g:10025)**
Digital processing of signals and its applications ★Цифровая обработка сигналов и ее применения. (Russian) [Digital processing of signals and its applications] **(82h:94001)**

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Anderson, Brian D. O. *See* **Potter, J. M., 82e:94029**
Arimoto, Suguru *See* **Monden, Yoshimi, 82h:94010**
Barnes, Casper W. Error feedback in normal realization of recursive digital filters. **82a:94014**
Barone, Piero (*with* Regoliosi, Giuseppe) ★Analisi statistica del disturbo causato dal campo elettromagnetico di rete su dati digitali rilevati con una strumentazione elettronica. (Italian) [Statistical analysis of the disturbance caused to relevant digital data in the electromagnetic field of a network by an electronic instrument] **82m:94021**
Beauchamp, K. G. (*with* Yuen, C. K.) ★Data acquisition for signal analysis. **82j:94006**
Benedetto, John J. The theory of constructive signal analysis. **82m:94022**
Blachman, Nelson M. The effect of phase error on DPSK error probability. **82e:94005**
Bogdanovič, V. A. (*with* Prokof'ev, V. N.) Two-sample nonparametric rules for detecting signals. (Russian) **82e:94021**
Bordelon, Derrill J. Complementarity of the Reddi method of source direction estimation with those of Pisarenko and Cantoni and Godara. I. **82d:94014**
Bromba, M. U. A. (*with* Ziegler, H.) Explicit formula for filter function of maximally flat nonrecursive digital filters. **82a:94015**
Cambanis, Stamatis *See* **Masry, Elias, 82c:94007; 82e:94028** *and* **Habib, Muhammad K., 82e:94025**
Carol Vilanova, Antonio *See* **Lagunas-Hernández, Miguel A.; et al., 82i:94005**
Claasen, T. A. C. M. (*with* Mecklenbräuker, W. F. G.) The Wigner distribution—a tool for time-frequency signal analysis. I. Continuous-time signals. **82c:94006a**
(*with* Mecklenbräuker, W. F. G.) The Wigner distribution—a tool for time-frequency signal analysis. II. Discrete-time signals. **82c:94006b**
(*with* Mecklenbräuker, W. F. G.) The Wigner distribution—a tool for time-frequency signal analysis. III. Relations with other time-frequency signal transformations. **82c:94006c**
Cybakov, B. S. Resolution of a conflict of known multiplicity. **82i:94004**
Delsarte, Philippe (*with* Genin, Yves V.; Kamp, Yves G.) Two-variable stability criteria. (*See* **82e:94002**)
Dickinson, Bradley W. Properties and applications of Gaussian autoregressive processes in detection theory. **82e:94022**
Dymowski, Stanisław On a representation and some properties of a power density spectrum and an autocorrelation function of a random discrete signal. (Polish. Russian and English summaries) **82e:94023**
Escudié, Bernard (*with* Flandrin, Patrick P. A.) Sur quelques propriétés de la représentation conjointe et de la fonction d'ambiguïté des signaux d'énergie finie. (English summary) **82h:94007**
Fettweis, Alfred A design method for recursive fan filters. (*See* **82e:94002**)
Figueiras-Vidal, Aníbal R. (*with* Mariño-Acebal, José B.; García-Gómez, Ramón) On generalized sampling expansions for deterministic signals. **82d:94015**
See also **Lagunas-Hernández, Miguel A.; et al., 82i:94005**
Flandrin, Patrick P. A. *See* **Escudié, Bernard, 82h:94007**
Freedman, Roy S. On Gram-Charlier approximations. **82a:94016**
Frieden, B. Roy Maximum-information data processing: application to optical signals. **82a:94017**
García-Gómez, Ramón *See* **Figueiras-Vidal, Aníbal R.; et al., 82d:94015**
Gardner, W. A. Design of nearest prototype signal classifiers. **82e:94024**
Genin, Yves V. *See* **Delsarte, Philippe; et al., (*See* 82e:94002)**
Gethöffer, Hans A concept of hardware and software for digital signal processing. (*See* **82k:68003**)
Gogin, N. D. The Hadamard transformation and increase of the scale of a signal. (Russian) **82d:94016**
Goodman, Dennis M. Quadrantal symmetry conditions and their use in the design of two-dimensional filters. (*See* **82d:93001**)
Gromoglasov, N. M. Correlational analysis on the basis of frequency-pulse signals. **82a:94018**
Habib, Muhammad K. (*with* Cambanis, Stamatis) Sampling approximation for non-band-limited harmonizable random signals. **82e:94025**
Hayes, Monson H. *See* **Tom, Victor T.; et al., 82h:94011**
Hirt, W. (*with* Pasupathy, S.) Suboptimal reception of binary CPSK signals. **82e:94026**
Kailath, Thomas Redheffer scattering theory and linear state-space estimation problems. **82e:94027**
Kamp, Yves G. *See* **Delsarte, Philippe; et al., (*See* 82e:94002)**
Kayran, A. H. (*with* King, Robert A.) Stability test for two-dimensional recursive digital filters using inner determinants. **82a:94019**
King, Robert A. *See* **Kayran, A. H., 82a:94019**
Kodek, Dušan M. (*with* Steiglitz, Kenneth) Filter-length word-length tradeoffs in FIR digital filter design. **82a:94020**
Korado, V. A. Optimal multichannel detection and discrimination of quasideterministic signals against a background of Gaussian noises with unknown interchannel correlation matrix. **82h:94008**
Kuznecov, V. P. Estimation that is stable with regard to distribution form. Uncoupled distributions. **82d:94017**
Labianca, F. M. (*with* Lloyd, Stuart P.) Adaptive focusing: the likelihood ratio. **82h:94009**
Lagunas-Hernández, Miguel A. (*with* Figueiras-Vidal, Aníbal R.; Mariño-Acebal, José B.; Carol Vilanova, Antonio) A linear transform for spectral estimation. **82i:94005**
Liu, Bede *See* **Munson, David C., Jr., 82a:94023**
Lloyd, Stuart P. *See* **Labianca, F. M., 82h:94009**
Maher, David P. Two-dimensional digital filtering using transforms over extensions of finite rings. **82a:94021**
Mariño-Acebal, José B. *See* **Figueiras-Vidal, Aníbal R.; et al., 82d:94015** *and* **Lagunas-Hernández, Miguel A.; et al., 82i:94005**
Marzetta, Thomas L. Two-dimensional linear prediction: autocorrelation arrays, minimum-phase prediction error filters, and reflection coefficient arrays. **82a:94022**
Masry, Elias (*with* Cambanis, Stamatis) Consistent estimation of continuous-time signals from quantized noisy samples. **82e:94028**
(*with* Cambanis, Stamatis) Consistent estimation of continuous-time signals from nonlinear transformations of noisy samples. **82c:94007**
McClellan, James H. *See* **Tom, Victor T.; et al., 82h:94011**
Mecklenbräuker, W. F. G. *See* **Claasen, T. A. C. M., 82c:94006**
Mikelson, A. K. Estimation of broadband signal parameters at relatively low average discretization frequencies. **82m:94023**
Milstein, Laurence B. Maximum-likelihood estimation of the angular position and extent of a target. **82i:94006**
Monden, Yoshimi (*with* Arimoto, Suguru) Fast algorithms for digital signal analysis. (Japanese) **82h:94010**

Morgan, Dennis R. Analysis of digital random numbers generated from serial samples of correlated Gaussian noise. **82i:94007**

Morris, Joel M. On single-sample robust detection of known signals with additive unknown-mean amplitude-bounded random interference. II. The randomized decision rule solution. **82d:94018**

Munson, David C., Jr. (*with* Liu, Bede) Narrow-band recursive filters with error spectrum shaping. **82a:94023**

Neuvo, Yrjö *See* **Renfors, Markku, 82a:94024**

Ormsby, J. F. A. Generalized interpolation, sampling expressions, and their relationship. **82i:94006**

Pasupathy, S. *See* **Hirt, W., 82e:94026**

Poljak, L. M. ★Вероятностный анализ много-уровневых сигналов. (Russian) [Probabilistic analysis of multilevel signals] **82k:94007**

Ponomarenko, V. P. Investigation of a model of a correlational-extremal system of tracking of the delay of a noisy signal. **82m:94024**

Potter, J. M. (*with* Anderson, Brian D. O.) Time-limited time-invariant Wiener filtering. **82e:94029**

Prokof'ev, V. N. *See* **Bogdanovič, V. A., 82e:94021**

Quatieri, Thomas F., Jr. *See* **Tom, Victor T.; et al., 82h:94011**

Regoliosi, Giuseppe *See* **Barone, Piero, 82m:94021**

Renfors, Markku (*with* Neuvo, Yrjö) The maximum sampling rate of digital filters under hardware speed constraints. **82a:94024**

Steiglitz, Kenneth *See* **Kodek, Dušan M., 82a:94020**

Steinel, Ulrich Fast computation of Toeplitz forms under narrowband conditions with applications to statistical signal processing. (German and French summaries) **82g:94002**

Tom, Victor T. (*with* Quatieri, Thomas F., Jr.; Hayes, Monson H.; McClellan, James H.) Convergence of iterative nonexpansive signal reconstruction algorithms. **82h:94011**

Yuen, C. K. *See* **Beauchamp, K. G., 82j:94006**

Ziegler, H. *See* **Bromba, M. U. A., 82a:94015**

secondary classifications:

Allen, Jont B. *See* **Yarlagadda, Rao, (82m:94019)**

Borchi, E. (*with* Poli, M.) The two-dimensional minimum-bias window function. (German and French summaries) **(82m:94003)**

Dragan, Ja. P. ★Структура и представления моделей стохастических сигналов. (Russian) [Structure and representations of models of stochastic signals] **(82g:60050)**

Evlanov, L. G. Optimal statistical decisions with qualitative measurements. Signal detection. **(82h:90006)**

Helstrom, Carl W. Detection of quantum signals of random phase in thermal noise. **(82a:81059)**

Detection of quantum signals by a mismatched receiver. **(82c:81054)**

Hingorani, Rajesh *See* **Stark, Henry; et al., (82e:68099)**

Honig, Michael L. (*with* Messerschmitt, David G.) Convergence properties of an adaptive digital lattice filter. **(82e:94009)**

(Jaroslavskiĭ, L. P.) *See* **Digital processing of signals and its applications, (82h:94001)**

Lindgren, Allen G. *See* **Rattey, Paul A., (82i:65080)**

Mersereau, Russell M. (*with* Speake, Theresa C.) A unified treatment of Cooley-Tukey algorithms for the evaluation of the multidimensional DFT. **(82h:65102)**

Messerschmitt, David G. *See* **Honig, Michael L., (82e:94009)**

Paul, Indraneel *See* **Stark, Henry; et al., (82e:68099)**

Pelkowitz, Lionel Frequency domain analysis of wraparound error in fast convolution algorithms. **(82e:94011)**

Pinsker, M. S. Optimal filtration of square-integrable signals in Gaussian noise. **(82j:93048)**

Poli, M. *See* **Borchi, E., (82m:94003)**

Prasada Rao, G. *See* **Saha, D. C., (82a:93021)**

Ramm, Alexander G. Linear filtering of certain vector-valued nonstationary random processes. (Russian) **(82a:60056)**

Rattey, Paul A. (*with* Lindgren, Allen G.) Sampling the 2-D Radon transform. **(82i:65080)**

de Reffye, J. Applications des distributions et des distributions aléatoires à la théorie du signal. (English summary) [Applications of distributions and random distributions to signal theory] **(82k:60095)**

Robinson, Enders A. ★Physical applications of stationary time-series. **(82d:94001)**

Saha, D. C. (*with* Prasada Rao, G.) Identification of distributed parameter systems via multidimensional distributions. **(82a:93021)**

Speake, Theresa C. *See* **Mersereau, Russell M., (82h:65102)**

Stark, Henry (*with* Woods, John W.; Paul, Indraneel; Hingorani, Rajesh) Direct Fourier reconstruction in computer tomography. **(82e:68099)**

Tartakovskiĭ, A. G. Simultaneous successive detection of signals and estimation of parameters with a priori uncertainty. **(82f:93072)**

Woods, John W. *See* **Stark, Henry; et al., (82e:68099)**

Yarlagadda, Rao (*with* Allen, Jont B.) Aliasing errors in short-time analysis. (German and French summaries) **(82m:94019)**

Digital processing of signals and its applications ★Цифровая обработка сигналов и ее применения. (Russian) [Digital processing of signals and its applications] **(82h:94001)**

94A14 Modulation and demodulation

Aulin, Tor (*with* Sundberg, Carl-Erik W.) Continuous phase modulation. I. Full response signaling. **82d:94019a**

(*with* Rydbeck, Nils; Sundberg, Carl-Erik W.) Continuous phase modulation. II. Partial response signaling. **82d:94019b**

Ayuso, A. J. Rubio A note on a new Walsh transformation method for delta modulated functions. (German and French summaries) **82h:94012**

Baras, J. S. Noncommutative probability models in quantum communication and multi-agent stochastic control. **82e:94030**

Bucklew, James A. Companding and random quantization in several dimensions. **82i:94008**

Davis, Artice M. Realizability-preserving transformations for digital and analog filters. **82a:94025**

Ericson, Thomas H. E. Modulation by means of linear periodic filtering. **82e:94031**

Freeman, David F. Asymptotic performance of nonlinear demodulators in impulsive noise. **82d:94020**

Iliev, Sava K. Comparative analysis of synchronous and asynchronous systems for data transmission. (Bulgarian. Russian and English summaries) **82d:94021**

Mazur, Brian A. (*with* Taylor, Desmond P.) Demodulation and carrier synchronization of multi-h phase codes. **82a:94026**

Pyt'ev, Ju. P. Suppression of false signals in the problem of resolution improvement. (Russian) **82j:94007**

Rydbeck, Nils *See* **Aulin, Tor; et al., 82d:94019b**

Solodovnikov, A. I. Formation of optimal Karhunen-Loève bases with a fast transform algorithm. (Russian) **82f:94006**

Sundberg, Carl-Erik W. *See* **Aulin, Tor, 82d:94019**

Taylor, Desmond P. *See* **Mazur, Brian A., 82a:94026**

Vokurka, Karel Power spectrum of the periodic group pulse process. **82a:94027**

secondary classifications:

Hayes, Monson H. *See* **Tom, Victor T.; et al., (82h:94011)**

Jenq, Y. C. On the stability of slotted ALOHA systems. **(82a:93070)**

Johnston, Donald A. (*with* Jones, Stephen K.) Spectrally efficient communication via fading channels using coded multilevel DPSK. **(82a:94045)**

Jones, Stephen K. *See* **Johnston, Donald A., (82a:94045)**

Martin, Wolfgang Line tracking in nonstationary processes. (German and French summaries) **(82f:92006)**

McClellan, James H. *See* **Tom, Victor T.; et al., (82h:94011)**

Quatieri, Thomas F., Jr. *See* **Tom, Victor T.; et al., (82h:94011)**

Tom, Victor T. (*with* Quatieri, Thomas F., Jr.; Hayes, Monson H.; McClellan, James H.) Convergence of iterative nonexpansive signal reconstruction algorithms. **(82h:94011)**

Watanabe, Keigo An alternative approach to the derivation of distributed-type partitioned filters. **(82e:93113)**

94A15 Information theory, general [See also 62B10.]

Belonogov, G. G. (*with* Novoselov, A. P.) Principles of the construction of automated information systems. (Russian) **82a:94028**

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Kodek, Dušan M. Conditions for the existence of fast number-theoretic transforms. **82e:94032**

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(Longo, Giuseppe) *See* **Information theory approach to communications, 82d:94024**

Maksa, Gy. Bounded symmetric information functions. **82a:94032**

Mathai, A. M. (*with* Rathie, Pushpa N.) Recent contributions to axiomatic definitions of information and statistical measures through functional equations. **82d:94022**

(Nežmetdinov, T. K.) *See* **Information reception and processing in structurally complex systems, 82c:94008**

Novoselov, A. P. *See* **Belonogov, G. G., 82a:94028**

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Petrov, B. N. (*with* Ulanov, G. M.; Ul'janov, S. V.) Informativeness of signals and compression of controlled information processes. (Russian) **82g:94003**

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Rathie, Pushpa N. *See* **Mathai, A. M., 82d:94022**

Roy, Dipa On some information-improvement. **82i:94009**

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Ulanov, G. M. *See* **Petrov, B. N.; et al., 82g:94003**

Ul'janov, S. V. *See* **Petrov, B. N.; et al., 82g:94003**

Urbanik, Kasimierz An axiomatic definition of information. (French summary) **82a:94033**

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Information theory approach to communications ★The information theory approach to communications. **82d:94024**

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CISM, Information Theory Approach to Communications ★The information theory approach to communications. **82d:94024**

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Arlotti, Luisa Associativity hypotheses in information theory. (Italian. English summary) **(82c:39006)**

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Löffler, Helmut ★Information—Signal—Nachrichtenverkehr. (German) [Information—signals—communications] **(82f:94001)**

Maschio, G. On a system of functional equations from information theory. (Italian) **(82f:39007)**

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Ohmatsu, Shigeru *See* **Ohe, Syunichiro; et al., (82c:93023)**

Pessoa, Franquiberto dos Santos Approximation of some information measures. **(82f:94009)**

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Soeda, Takashi *See* **Ohe, Syunichiro; et al., (82c:93023)**

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Thiagarajan, P. S. *See* **Genrich, H. J.; et al., (82a:68112)**

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Abrahams, Julia (*with* Thomas, John B.) Properties of the maximal correlation function. **82g:94004**

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Khan, Abul Basar (*with* Autar, Ram) On useful information of order α and type β. **82i:94010**

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Komesaroff, M. M. (*with* Narayan, Ramesh; Nityananda, Rajaram) The maximum entropy method of image restoration-properties and limitations. **82a:94040**

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Nath, Prem (*with* Kaur, Man Mohan) On characterizing the Shannon entropy without assuming symmetry. **82h:94016**

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Thomas, John B. *See* **Abrahams, Julia, 82g:94004**

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(Nežmetdinov, T. K.) *See* **Information reception and processing in structurally complex systems, (82c:94008)**

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Nicholson, H. *See* **Fernando, K. V. M., (82e:93007)**
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94A24 Coding theorems (Shannon theory)

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Autar, Ram *See* **Khan, Abul Basar, 82a:94046**
Costello, Daniel J., Jr. *See* **Peterson, Roger L., 82a:94048** *and* **82g:94012**
Csiszár, I. (*with* Körner, J.) On the capacity of the arbitrarily varying channel for maximum probability of error. **82j:94010**
Davisson, Lee D. (*with* McEliece, Robert J.; Pursley, Michael B.; Wallace, Mark S.) Efficient universal noiseless source codes. **82e:94038**
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Dumer, I. I. (*with* Zinov'ev, V. A.; Zjablov, V. V.) Cascading decoding with respect to minimal generalized distance. (Russian. English summary) **82f:94011**
El Gamal, Abbas A. (*with* van der Meulen, Edward) A proof of Marton's coding theorem for the discrete memoryless broadcast channel. **82j:94011**
Ericson, Thomas H. E. (*with* Ingemarsson, Ingemar) A two-way communication problem with application to information retrieval. **82m:94029**
Fontana, Robert J. (*with* Gray, Robert M.; Kieffer, John C.) Asymptotically mean stationary channels. **82i:94012**
Frank, Robert L. Polyphase complementary codes. **82g:94011**
Gray, Robert M. *See* **Fontana, Robert J.; et al., 82i:94012**
Han, Te Sun The capacity region for the deterministic broadcast channel with a common message. **82h:94009**
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Hirasawa, Shigeichi (*with* Kasahara, Masao; Sugiyama, Yasuo; Namekawa, Toshihiko) An improvement of error exponents at low rates for the generalized version of concatenated codes. **82e:94040**
Ingemarsson, Ingemar *See* **Ericson, Thomas H. E., 82m:94029**
Johnston, Donald A. (*with* Jones, Stephen K.) Spectrally efficient communication via fading channels using coded multilevel DPSK. **82a:94045**
Jones, Christopher B. An efficient coding system for long source sequences. **82e:94041**
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Karlof, John *See* **Downey, Charles, 82a:94044**
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Körner, J. *See* **Csiszár, I., 82j:94010**
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McEliece, Robert J. *See* **Davisson, Lee D.; et al., 82e:94038**
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Rahe, Maurice *See* **Kieffer, John C., 82i:94013**
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Rydel, Mieczysław Characteristics of transmission codes for optical fibre communication systems. (Polish. English, French, German and Russian summaries) **82h:94011**
Sugiyama, Yasuo *See* **Hirasawa, Shigeichi; et al., 82e:94040**
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Chevillat, Pierre R. *N*-user trellis coding for a class of multiple-access channels. **(82i:94024)**
Hellman, Martin E. *See* **Merkle, Ralph C., (82f:68103)**
Hirasawa, Shigeichi (*with* Kasahara, Masao; Sugiyama, Yasuo; Namekawa, Toshihiko) Certain generalizations of concatenated codes—exponential error bounds and decoding complexity. **(82a:94068)**
Kasahara, Masao *See* **Hirasawa, Shigeichi; et al., (82a:94068)**
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Sugiyama, Yasuo *See* **Hirasawa, Shigeichi; et al., (82a:94068)**
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Heilmann, Wolf-Rüdiger A remark on the connections between coding and dynamic programming. **82m:94030**
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Huang, Thomas S. Efficient coding of continuous-tone images. (*See* **82d:94024**)
Jin, Zhi Quan (*with* Chen, Pei Pei) A note on recreating a source code from reverse Polish form. (Chinese. English summary) **82j:94013**
Kieffer, John C. Extension of source coding theorems for block codes to sliding-block codes. **82h:94017**
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Rissanen, Jorma (*with* Langdon, Glen G., Jr.) Universal modeling and coding. **82h:94019**
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Sharma, Bhu Dev (*with* Priya, Ved) Source coding theorem and its converse with side information. **82m:94033**
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Vajda, Igor Stability of variable length coding. (French summary) **82a:94053**

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Huang, Thomas S. Efficient coding of graphics. (*See* **82d:94024**)
Kieffer, John C. Zero-error stationary coding over stationary channels. **(82g:94015)**
Koljada, A. A. (*with* Kravcov, V. K.) Generalized residue class systems with an extended interval index. (Russian) **(82b:68004)**
Kravcov, V. K. *See* **Koljada, A. A., (82b:68004)**
Omura, Jim K. Source and channel coding with block and convolutional codes. (*See* **82d:94024**)
Payne, R. W. Selection criteria for the construction of efficient diagnostic keys. **(82j:92010)**

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Burnett, James *See* **Huang, Thomas S.,** (*See* **82d:94024**)
Chen, Wen De *See* **Dai, Zong Duo; et al., 82j:94014**
Cohen, Gérard *See* **Simionescu, Claudia Lidia, 82k:94012**
Cooper, Joan *See* **Keats, R. G., 82a:94055**
Cyranski, John F. Necessary and sufficient conditions to solve the rate distortion problem for general alphabets. **82i:94016**
Dai, Zong Duo (*with* Ni, Lu Qun; Yang, Jun Hui; Chen, Wen De) The estimation of the correlations of a class of binary sequences. (Chinese. English summary) **82j:94014**
Dunham, James G. (*with* Gray, Robert M.) Joint source and noisy channel trellis encoding. **82m:94034**
Fedotkin, A. N. Multivariate density of the probability distribution of structural noise in a general radio channel of a multichannel asynchronous communications system. (Russian) (*See* **82c:94008**)
Fontana, Robert J. Limit theorems for slowly varying composite sources. **82d:94033**
Galdos, Jorge I. A rate distortion theory lower bound on desired function filtering error. **82e:94045**
Gray, Robert M. (*with* Kieffer, John C.; Linde, Y.) Locally optimal block quantizer design. **82a:94054**
See also **Dunham, James G., 82m:94034**
Gurdial *See* **Taneja, Inder Jeet, 82a:94057**
Huang, Thomas S. (*with* Burnett, James) Image mensuration techniques. (*See* **82d:94024**)
Irwin, G. W. Predictors of maximum-likelihood performance of an unknown channel. **82b:94014**
Keats, R. G. (*with* Cooper, Joan) The optimum processing of clipped signals: an approach based on minimum signal distortion. **82a:94055**
Kieffer, John C. *See* **Gray, Robert M.; et al., 82a:94054**
Krauze, A. V. *See* **Mikelson, A. K., 82a:94056**
Linde, Y. *See* **Gray, Robert M.; et al., 82a:94054**
Mikelson, A. K. (*with* Krauze, A. V.) Method of digital stochastic conversion of nonlinear distortion factor. **82a:94056**
Ni, Lu Qun *See* **Dai, Zong Duo; et al., 82j:94014**
Simionescu, Claudia Lidia (*with* Cohen, Gérard) An approximation to rate distortion. **82k:94012**
Taneja, Inder Jeet (*with* Gurdial) Bounds on distortion due to erasure and error at low rates. **82a:94057**
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Alekseev, V. E. Two constructions of difference sets. (Russian) **(82m:05024)**
Crolotte, Alain *See* **Pearl, Judea, (82a:94063)**
D'jačkov, A. G. Lower bound for ensemble-average error probability for a discrete memoryless channel. **(82i:94032)**
Košelev, V. N. Hierarchical coding of discrete sources. **(82m:94031)**
Kroeker, John P. Wiener analysis of functionals of a Markov chain: application to neural transformations of random signals. **(82c:92011)**
Ozarow, L. On a source-coding problem with two channels and three receivers. **(82a:94052)**
Pearl, Judea (*with* Crolotte, Alain) Storage space versus validity of answers in probabilistic question-answering systems. **(82a:94063)**

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Bergmans, P. P. The Gaussian network. (*See* **82d:94024**)
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The computational cutoff rate of channels having memory. **82e:94046**
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Bulotas, Liudvikas *See* **Oleščuk, Valentina; et al., 82a:94062**
Callahan, A. C. Coherence and maximum likelihood multiple receiver signal detection. **82e:94047**
Chang, Shih Chun (*with* Wolf, Jack K.) On the *T*-user *M*-frequency noiseless multiple-access channel with and without intensity information. **82a:94058**
Cottrell, Marie (*with* Fort, Jean-Claude; Malgouyres, Gérard) Stability analysis for some algorithms. **82g:94013**
Cover, Thomas M. (*with* Leung, Cyril S. K.) An achievable rate region for the multiple-access channel with feedback. **82e:94048**
Cybakov, B. S. (*with* Berkovskiĭ, M. A.) Multiple access with reservation. **82a:94059**
Dueck, Gunter Partial feedback for two-way and broadcast channels. **82a:94060**
A note on the multiple access channel with correlated sources. **82j:94015**
Duma, Ioan Modèles semi-markoviens pour les canaux numériques. **82g:94014**
Dzung, D. Generation of cross-covariance sequences. **82e:94049**
Elia, Michele *See* **Biglieri, Ezio,** (*See* **82d:94024**)
Fort, Jean-Claude *See* **Cottrell, Marie; et al., 82g:94013**
Gel'fand, S. I. (*with* Pinsker, M. S.) Coding for channel with random parameters. (Russian summary) **82d:94034**
Golubev, G. K. Estimation of the frequency of a multichannel receiver. (Russian) **82d:94035**
Han, Te Sun (*with* Kobayashi, Kingo) A new achievable rate region for the interference channel. **82j:94016**
Ihara, Shunsuke On the capacity of the continuous time Gaussian channel with feedback. **82a:94061**
Kieffer, John C. On the transmission of Bernoulli sources over stationary channels. **82d:94036**
Perfect transmission over a discrete memoryless channel requires infinite expected coding time. **82d:94037**
Zero-error stationary coding over stationary channels. **82g:94015**
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Malgouyres, Gérard *See* **Cottrell, Marie; et al., 82g:94013**
Mathews, N. A. (*with* Aghvami, A. H.) Binary and quaternary CPSK transmissions through nonlinear channels in additive Gaussian noise and cochannel interference. **82d:94038**
Mihailov, V. A. Adaptive random access in broadcast channels. (Russian) **82d:94039**
Narayan, Prakash (*with* Snyder, Donald L.) The two-user cutoff rate for an asynchronous and a synchronous multiple-access channel are the same. **82m:94035**
Olaniyan, O. O. Analysis of feedback communication systems. **82b:94016**
Oleščuk, Valentina (*with* Oleščuk, Valeriĭ; Bulotas, Liudvikas) Selection of a working algorithm in a high-speed multichannel discrete information transfer system. (Russian. Lithuanian and English summaries) **82a:94062**
Oleščuk, Valeriĭ *See* **Oleščuk, Valentina; et al., 82a:94062**
Omura, Jim K. Cutoff rates when decoding with approximate channel statistics. (*See* **82d:94002**)
See also **Viterbi, A. J.,** (*See* **82d:94024**)
Pieprzyk, Józef Codes that detect illegal exchange of messages (analysis). (Polish. Russian and English summaries) **82g:94016**
Pierce, John R. (*with* Posner, Edward C.; Rodemich, Eugene R.) The capacity of the photon counting channel. **82c:94009**
Pinsker, M. S. (*with* Poltyrev, G. Š.) Carrying capacity of a stationary Gaussian broadcast channel. (Russian) **82m:94036b**
See also **Gel'fand, S. I., 82d:94034**
Pippenger, Nicholas Bounds on the performance of protocols for a multiple-access broadcast channel. **82i:94017**
Poltyrev, G. Š. Carrying capacities for certain broadcast channels. (Russian) **82m:94036a**
See also **Pinsker, M. S., 82m:94036b**
Posner, Edward C. *See* **Pierce, John R.; et al., 82c:94009**
Prelov, V. V. Asymptotic behavior of the capacity of a continuous channel with large smooth noise. **82g:94017**
Rodemich, Eugene R. *See* **Pierce, John R.; et al., 82c:94009**
Shehadeh, N. M. *See* **Vanelli, J. C., 82e:94050**
Snyder, Donald L. *See* **Narayan, Prakash, 82m:94035**
Šujan, Štefan Channels with additive asymptotically mean stationary noise. **82h:94020**
Vanelli, J. C. (*with* Shehadeh, N. M.) Signal parameter optimization for the impulsive noise channel. **82e:94050**
Viterbi, A. J. (*with* Omura, Jim K.) Error bounds for intersymbol interference channels. (*See* **82d:94024**)
Winkelbauer, Karel Discrete communication channels decomposable into finite-memory components. **82e:94051**
Wolf, Jack K. *See* **Chang, Shih Chun, 82a:94058**

secondary classifications:

Arimoto, Suguru *See* **Hashimoto, Takeshi, (82e:94039)**
Chevillat, Pierre R. *N*-user trellis coding for a class of multiple-access channels. **(82i:94024)**
Fontana, Robert J. (*with* Gray, Robert M.; Kieffer, John C.) Asymptotically mean stationary channels. **(82i:94012)**
Gray, Robert M. *See* **Fontana, Robert J.; et al., (82i:94012)**
Gualtierotti, A. F. On average mutual information and capacity for a channel without feedback and contaminated Gaussian noise. **(82a:94037)**
Han, Te Sun The capacity region for the deterministic broadcast channel with a common message. **(82b:94009)**
Hashimoto, Takeshi (*with* Arimoto, Suguru) A hierarchy of codes for memoryless channels. **(82e:94039)**
Hirasawa, Shigeichi (*with* Kasahara, Masao; Sugiyama, Yasuo; Namekawa, Toshihiko) An improvement of error exponents at low rates for the generalized version of concatenated codes. **(82e:94040)**
Jaffe, Jeffrey M. Bottleneck flow control. **(82h:68030)**
Kakihara, Yûichirô Stationary processes and information channels. **(82k:60076)**
Kasahara, Masao *See* **Hirasawa, Shigeichi; et al., (82e:94040)**
Kieffer, John C. (*with* Rahe, Maurice) Markov channels are asymptotically mean stationary. **(82i:94013)**
See also **Fontana, Robert J.; et al., (82i:94012)**
(Longo, Giuseppe) *See* **Information theory approach to communications, (82d:94024)**
Mukhopadhyay, A. K. Stability and the transient analysis of the repulsion motor by the Kronian method of approach. **(82e:94066)**
Namekawa, Toshihiko *See* **Hirasawa, Shigeichi; et al., (82e:94040)**
(Nežmetdinov, T. K.) *See* **Information reception and processing in structurally complex systems, (82c:94008)**
Rahe, Maurice *See* **Kieffer, John C., (82i:94013)**
Sloane, N. J. A. A note on the Leech lattice as a code for the Gaussian channel. **(82i:94015)**
Stout, Quentin F. Improved prefix encodings of the natural numbers. **(82d:94045)**
Sugiyama, Yasuo *See* **Hirasawa, Shigeichi; et al., (82e:94040)**
Information reception and processing in structurally complex systems ★Прием и обработка информации в сложных информационных системах. Вып. 9. (Russian) [Information reception and processing in structurally complex systems. No. 9] **(82c:94008)**
Information theory approach to communications ★The information theory approach to communications. **(82d:94024)**
Summer School:
CISM, Information Theory Approach to Communications ★The information theory approach to communications. **(82d:94024)**

94A50 Theory of questionnaires

Bouchon, Bernadette Fuzzy questionnaires. **82m:94037**

Brockett, Patrick L. (*with* Haaland, Perry D.; Levine, Arnold) Information-theoretic analysis of questionnaire data. **82m:94038**
Crolotte, Alain *See* **Pearl, Judea, 82a:94063**
Haaland, Perry D. *See* **Brockett, Patrick L.; et al., 82m:94038**
Katona, Gyula O. H. Search using sets with small intersection. (French summary) **82b:94017**
Levine, Arnold *See* **Brockett, Patrick L.; et al., 82m:94038**
Pearl, Judea (*with* Crolotte, Alain) Storage space versus validity of answers in probabilistic question-answering systems. **82a:94063**

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Aggarwal, N. L. (*with* Bouchon, Bernadette) Chronique sur la théorie de l'information. **(82a:01027)**
Bouchon, Bernadette *See* **Aggarwal, N. L., (82a:01027)**
(Picard, C. F.) *See* **Aggarwal, N. L.; et al., (82a:01027)**
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Picard, Claude François *See* **Aggarwal, N. L.; et al., (82a:01027)**

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Arambepola, B. Fast computation of multidimensional discrete Fourier transforms. **82g:94018**
Arimoto, Suguru *See* **Monden, Yoshimi, 82k:94015**
Chen, Kuang Ho (*with* Yang, Chung Chun) On n-dimensional sampling theorems. **82k:94013**
Couvreur, C. *See* **Goethals, J.-M., 82b:94018**
Goethals, J.-M. (*with* Couvreur, C.) A cryptanalytic attack on the Lu-Lee public-key cryptosystem. **82b:94018**
Kak, S. C. Masking ciphers. **82b:94019**
Kogan, I. M. ★Прикладная теория информации. (Russian) [Applied information theory] **82k:94014**
Monden, Yoshimi (*with* Arimoto, Suguru) Generalized Rouche's theorem and its application to multivariate autoregressions. **82k:94015**
Voukalis, Demetre C. A good solution of the encryption problem using matrix code, distance factor and PN sequences. **82b:94020**
Yang, Chung Chun *See* **Chen, Kuang Ho, 82k:94013**

secondary classifications:

Delsarte, Philippe (*with* Genin, Yves V.; Kamp, Yves G.) A simple proof of Rudin's multivariable stability theorem. **(82i:32006)**
Genin, Yves V. *See* **Delsarte, Philippe; et al., (82i:32006)**
Hazony, Dov Pulse control in dynamic systems. **(82d:93018)**
Kamp, Yves G. *See* **Delsarte, Philippe; et al., (82i:32006)**
Krishnamurthy, E. V. (*with* Ramachandran, Vijaya) A cryptographic system based on finite field transforms. **(82e:94062)**
Payne, R. W. (*with* Preece, D. A.) Identification keys and diagnostic tables: a review. **(82a:68128)**
Preece, D. A. *See* **Payne, R. W., (82a:68128)**
Ramachandran, Vijaya *See* **Krishnamurthy, E. V., (82e:94062)**

94Bxx Algebraic theory of error-correcting codes

secondary classifications:

Cameron, Peter J. (*with* van Lint, Jacobus Hendricus) ★Graphs, codes and designs. **(82d:05002)**
(*with* van Lint, Jacobus Hendricus) ★Теория графов, теория кодирования и блок-схемы. (Russian) [Graph theory, coding theory and block designs] **(82d:05003)**
Durbin, John R. ★Modern algebra. **(82a:00003)**
van Lint, Jacobus Hendricus *See* **Cameron, Peter J., (82d:05002)** *and* **(82d:05003)**
(Stečkin, B. S.) *See* **Cameron, Peter J.; et al., (82d:05003)**

94B05 Linear codes, general

Arazi, Benjamin On the synthesis of de Bruijn sequences. **82k:94016**
Beth, Thomas (*with* Strehl, Volker) Materialien zur Codierungstheorie. **82e:94056a**
Bojarinov, I. M. (*with* Kacman, G. L.) Linear unequal error protection codes. **82i:94018**
Brouwer, Andries (*with* Delsarte, Philippe; Piret, Philippe) On the (23, 14, 5) Wagner code. **82b:94021**
Dass, Bal Kishan (*with* Muttoo, Sunil Kumar) A note on Reed-Muller codes. **82d:94040**
Delsarte, Philippe *See* **Brouwer, Andries; et al., 82b:94021**
Falkner, Gudrun (*with* Kowol, Bernhard; Heise, Werner; Zehendner, Eberhard) On the existence of cyclic optimal codes. (German summary) **82d:94041**
Goldberg, Donald Y. A generalized weight for linear codes and a Witt-MacWilliams theorem. **82e:94052**
Golomb, Solomon W. Obtaining specified irreducible polynomials over finite fields. **82a:94064**
Goppa, V. D. Codes on algebraic curves. (Russian) **82k:94017**
Hamada, Noboru (*with* Tamari, Fumikazu) Construction of optimal codes and optimal fractional factorial designs using linear programming. **82i:94019**
Heise, Werner *See* **Falkner, Gudrun; et al., 82d:94041**
Hwang, Tai Yang A relation between the row weight and column weight distributions of a matrix. **82i:94020**
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Kløve, Torleiv Upper bounds on codes correcting asymmetric errors. **82a:94065**
A lower bound for $A(n, 4, w)$. **82i:94021**
Kowol, Bernhard *See* **Falkner, Gudrun; et al., 82d:94041**
Muttoo, Sunil Kumar *See* **Dass, Bal Kishan, 82d:94040**
Nemetz, Tibor Run-test discrimination between written Hungarian and random sequences. **82h:94021**
Piret, Philippe *See* **Brouwer, Andries; et al., 82b:94021**
Poli, A. (*with* Ventou, M.) Codes autoduaux principaux et groupe d'automorphismes de l'algèbre $A = F_2[X_1, -, X_n]/(X_1^3 - 1, -, X_n^3 - 1)$. (English summary) **82i:94022**
Strehl, Volker *See* **Beth, Thomas, 82e:94056a**
Tamari, Fumikazu *See* **Hamada, Noboru, 82i:94019**
van Tilborg, Henk C. A. On the uniqueness resp. nonexistence of certain codes meeting the Griesmer bound. **82i:94023**
The smallest length of binary 7-dimensional linear codes with prescribed minimum distance. **82a:94056**
Tošić, Ratko On a class of D-complete OSPK and complete error-correcting codes. (Serbo-Croatian summary) **82j:94017**
Tu, Gui Zhang Canonical forms of a class of ternary forms over GF(2). (Chinese) **82j:94018a**
The enumeration of certain code words of the third-order Reed-Muller code. (Chinese) **82j:94018b**
Ventou, M. *See* **Poli, A., 82i:94022**
Voukalis, Demetre C. A new concatenated matrix code with cluster, burst and random error correcting abilities. **82h:94022**
Wolfmann, J. A new construction of the binary Golay code (24, 12, 8) using a group algebra over a finite field. **82a:94067**
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Baĭkenov, A. N. On the question of increasing the efficiency of nonmodular procedures in highly exact modular calculations. (Russian) **(82g:68029)**
Bridges, William G. (*with* Hall, Marshall, Jr.; Hayden, John L.) Codes and designs. **(82k:05017)**
Courteau, Bernard (*with* Fournier, Gilles; Fournier, R.) Une généralisation d'un théorème de Goethals-van Tilborg. **(82g:94021)**
Dekker, Jim Recursive equivalence types and cubes. **(82j:03056)**
Fournier, Gilles *See* **Courteau, Bernard; et al., (82g:94021)**
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Goel, S. N. Bounds over parity checks of linear codes correcting burst of specified Lee-weight/intensity. **(82a:94071)**
Graham, Ronald L. (*with* Sloane, N. J. A.) On constant weight codes and harmonious graphs. **(82f:10067b)**
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Gupta, Sat Narain On low-density-burst correcting linear codes. **(82a:94072)**
Hall, Marshall, Jr. *See* **Bridges, William G.; et al., (82k:05017)**
Hayden, John L. *See* **Bridges, William G.; et al., (82k:05017)**
Hirasawa, Shigeichi (*with* Kasahara, Masao; Sugiyama, Yasuo; Namekawa, Toshihiko) An improvement of error exponents at low rates for the generalized version of concatenated codes. **(82e:94040)**
Kasahara, Masao *See* **Hirasawa, Shigeichi; et al., (82e:94040)**
Miller, Robert L. A characterization of weight-preserving automorphisms of group algebras. **(82g:20031)**
Namekawa, Toshihiko *See* **Hirasawa, Shigeichi; et al., (82e:94040)**
Sloane, N. J. A. *See* **Graham, Ronald L., (82f:10067a)** *and* **(82f:10067b)**
Sugiyama, Yasuo *See* **Hirasawa, Shigeichi; et al., (82e:94040)**

94B10 Convolutional codes

Atanasiu, Adrian Tree-codifications and convolutional codes. **82d:94042**
Chevillat, Pierre R. N-user trellis coding for a class of multiple-access channels. **82i:94024**
Farrell, P. G. (*with* Goodman, R. M. F.) Soft-decision error control for h.f. data transmission. **82b:94022**
Goodman, R. M. F. (*with* Winfield, A. F. T.) Soft-decision minimum-distance sequential decoding algorithm for convolutional codes. **82e:94053**
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Hirasawa, Shigeichi (*with* Kasahara, Masao; Sugiyama, Yasuo; Namekawa, Toshihiko) Certain generalizations of concatenated codes—exponential error bounds and decoding complexity. **82a:94068**
Kasahara, Masao *See* **Hirasawa, Shigeichi; et al., 82a:94068**
Mamedli, È. M. (*with* Ovčinnikov, V. V.) Cascade procedures of packet-block coding. (Russian) **82b:94023**
McQuilton, D. More high-rate "cyclic" convolutional self-orthogonal codes. **82b:94024**
Effective constraint length of "cyclic" convolutional self-orthogonal codes. **82e:94054**
Murgan, A. T. The Viterbi algorithm for information transmission. (Romanian. English summary) **82d:94043**
Namekawa, Toshihiko *See* **Hirasawa, Shigeichi; et al., 82a:94068**
Ovčinnikov, V. V. *See* **Mamedli, È. M., 82b:94023**
Schalkwijk, J. P. M. Convolutional-codes: a state-space approach. (*See* **82d:94024**)
Sugiyama, Yasuo *See* **Hirasawa, Shigeichi; et al., 82a:94068**
Von Kaenel, Pierre A. Generators of principal left ideals in a noncommutative algebra. **82g:94019**
Some constructions for convolutional and block codes. **82k:94018**
Winfield, A. F. T. *See* **Goodman, R. M. F., 82e:94053**
Zhang, Zhao Zhi Computing methods for searching for optimum or near-optimum $(n, 1, m)$ convolutional codes. (Chinese) **82k:94019**

secondary classifications:

Kolář, Josef Heuristic decoding of convolutional codes. **(82f:94014)**
Omura, Jim K. Source and channel coding with block and convolutional codes. (*See* **82d:94024**)

94B15 Cyclic codes

Allard, P. E. *See* **Shiva, S. G. S.; et al., 82i:94027**

Bhargava, V. K. (*with* Nguyen, C.) Weight distribution of some cyclic codes of MacWilliams. **82i:94025**
Cedervall, Mats (*with* Sundberg, Carl-Erik W.) A class of perfect block codes for the binary channel associated with differentially encoded PSK signals with coherent detection. **82i:94026**
Ciucă, Ion On decoding systematic cyclic codes. (Romanian. French summary) **82g:94020**
Dodunekov, S. M. Cyclic codes with integer average weight. **82d:94044**
Ecker, A. How to compute the minimum distance for cyclic AN-codes over an arbitrary base. I. Elementary methods. **82j:94019**
Fujiwara, Eiji *See* **Kaneda, Shigeo, 82a:94069**
Kaneda, Shigeo (*with* Fujiwara, Eiji) Single byte error correcting-double byte error detecting codes for memory systems. **82a:94069**
Latypov, R. H. A checking matrix for a cyclic code generated by multiple roots. (Russian) **82a:94070**
Nguyen, C. *See* **Bhargava, V. K., 82i:94025**
Reed, I. S. (*with* Truong, T. K.) Simple proof of the continued fraction algorithm for decoding Reed-Solomon codes. **82a:94039**
da Rocha, V. C., Jr. Multilevel double error correcting codes. **82b:94025**
Séquin, G. *See* **Shiva, S. G. S.; et al., 82i:94027**
Shiva, S. G. S. (*with* Allard, P. E.; Séquin, G.) A class of composite codes. **82i:94027**
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Beth, Thomas (*with* Hain, Manfred; Sagerer, Gerhard; Schäfer, Norbert) Materialien zur Codierungstheorie. II. **(82e:94056b)**
Falkner, Gudrun (*with* Kowol, Bernhard; Heise, Werner; Zehendner, Eberhard) On the existence of cyclic optimal codes. (German summary) **(82d:94041)**
Hain, Manfred *See* **Beth, Thomas; et al., (82e:94056b)**
Heise, Werner *See* **Falkner, Gudrun; et al., (82d:94041)**
Kowol, Bernhard *See* **Falkner, Gudrun; et al., (82d:94041)**
Loginov, A. I. (*with* Sokolov, O. B.) Further results on codes with a majority decoding scheme. (Russian) **(82b:94028)**
McQuilton, D. Effective constraint length of "cyclic" convolutional self-orthogonal codes. **(82e:94054)**
Sagerer, Gerhard *See* **Beth, Thomas; et al., (82e:94056b)**
Schäfer, Norbert *See* **Beth, Thomas; et al., (82e:94056b)**
Sokolov, O. B. *See* **Loginov, A. I., (82b:94028)**
Von Kaenel, Pierre A. Generators of principal left ideals in a noncommutative algebra. **(82g:94019)**
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Gupta, Sat Narain On low-density-burst correcting linear codes. **82a:94072**
Kaushik, Manohar Lal Necessary and sufficient number of parity checks in codes correcting random errors and bursts with weight constraints under a new metric. **82a:94073**
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Schrijver, A. *See* **van Lint, Jacobus Hendricus, (82d:05041)**
Surla, Dušan *See* **Ušan, Janez; et al., (82d:05036)**
Tošić, Ratko *See* **Ušan, Janez; et al., (82d:05036)**
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Bojarinov, I. M. (*with* Kabatjanskiĭ, G. A.) Iterative arithmetic independent-error-correcting codes. **82m:94040**
Carter, W. C. (*with* Wadia, A. B.) Design and analysis of codes and their self-checking circuit implementations for correction and detection of multiple b-adjacent errors. **82a:94076**
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Ciucă, Ion On decoding systematic cyclic codes. (Romanian. French summary) **(82g:94020)**
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Al'zamarova, È. I. Some questions of self-correction of modular complex number codes. (Russian) **82a:94079**
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Capocelli, Renato M. ★A combinatorial property of codes having finite deciphering delay. **82m:94041**

On weakly prefix subsemigroups of a free semigroup. **82e:94057**

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Ng, Wai Hung Use of error patterns in coded communication systems. **(82d:94032)**

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Hamada, Noboru (*with* Tamari, Fumikazu) Construction of maximal t-linearly independent sets. **(82g:05027)**

(*with* Tamari, Fumikazu) On a geometrical method of construction of maximal t-linearly independent sets. **(82g:05028)**

Hammond, Peter q-coverings, codes, and line graphs. **(82i:05059)**

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Haley, Stephen B. Exact analysis of inhomogeneous ladder networks having a tridiagonal interaction matrix. **82a:94093**

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Vašenko, V. P. (*with* Frolov, A. B.) Algorithms of decomposition of logical functions and n-ary relations. (Russian) **82a:94125**

Venturini, Marco G. B. *See* **Alesina, Alberto, 82d:94065**

Vergez, Pierre ★Automates et graphes cartésiens. (French) [Automata and Cartesian graphs] **82h:94031**

Wegener, Ingo An improved complexity hierarchy on the depth of Boolean functions. **82i:94036**

Weisbuch, G. *See* **Atlan, H.; et al., 82m:94053**

Wu, Chuan Lin (*with* Feng, Tse Yun) The reverse-exchange interconnection network. **82d:94085**

(*with* Feng, Tse Yun) Fault-diagnosis for a class of multistage interconnection networks. (*See* **82b:68024**)

Wu, Li Sheng (*with* Zhu, Lie) Affine classification of Boolean functions and the construction of 3-$(\lambda, k, 2^n)$ designs. II. (Chinese) **82d:94071b**

See also **Feng, Ke Qin; et al., 82d:94071a**

Wu, X. (*with* Hurst, S. L.) A new universal logic gate (ULG3) based on the Reed-Muller canonic expansion. **82m:94063**

(*with* Chen, Xie Xiong; Hurst, S. L.) Mapping of Reed-Muller coefficients and the minimisation of exclusive OR-switching functions. **82m:94064**

Yamato, Kazuharu (*with* Omoto, Norio) An approach to the minimization for ternary logic function. **82f:94028**

Yang, Xiao Dong Algebraic logic and the diagnostic technique of the fault function method. (Chinese) **82h:94032**

Yin, Ke Zhen An inversion formula for switching functions. (Chinese. English summary) **82g:94029**

Zhu, Lie *See* **Feng, Ke Qin; et al., 82d:94071a** *and* **Wu, Li Sheng, 82d:94071b**

Žirabok, A. N. *See* **Danilov, V. V.; et al., 82d:94070**

Traité d'Électricité *See* **Mange, Daniel, 82f:94027**

secondary classifications:

Akimaru, Haruo (*with* Takahashi, Haruhisa) Asymptotic expansion for Erlang loss function and its derivative. **(82g:33037)**

Ben-David, Menashe *See* **Clark, Carl M.; et al., (82a:94133)**

Bennett, David W. Junctions. **(82e:03017)**

Bongiovanni, G. (*with* Coppersmith, D.; Wong, C. K.) An optimum time slot assignment algorithm for an SS/TDMA system with variable number of transponders. **(82d:94004)**

Chung, F. R. K. Zone-balanced networks and block designs. **(82m:94069)**

Clark, Carl M. (*with* Ben-David, Menashe; Kandel, Abraham) On the enumeration of distinct fuzzy switching functions. **(82a:94133)**

Cohn, Martin *See* **Robinson, John P., (82e:94059)**

Coppersmith, D. *See* **Bongiovanni, G.; et al., (82d:94004)**

Čurkin, V. I. Optimal distribution of information in communications networks. (Russian) **(82e:94073)**

Fettweis, Alfred Principles of complex wave digital filters. **(82d:94007)**

Gilezan, Koriolan Generalized pseudo-Boolean functions on finite sets. (Serbo-Croatian summary) **(82c:06028)**

Goles, E. (*with* Olivos, J.) Periodic behaviour of generalized threshold functions. **(82c:68033)**

Hammer, Peter L. (*with* Simeone, Bruno) Quasimonotone Boolean functions and bistellar graphs. **(82d:05090)**

Jury, E. I. (*with* Mansour, M.) Positivity and nonnegativity conditions of a quartic equation and related problems. **(82j:93029)**

Kandel, Abraham *See* **Clark, Carl M.; et al., (82a:94133)**

Kasim-Zade, O. M. A measure of complexity for networks composed of functional elements. (Russian) **(82k:68017)**

Kutirkov, Georgi One approach to the expression of functions of the algebra of logic. (Russian. Polish and French summaries) **(82j:03079)**

Lau, Dietlinde Basen und Ordnungen der maximalen Klassen zweier mehrsortiger Funktionenalgebren. **(82g:03110)**

Mansour, M. *See* **Jury, E. I., (82j:93029)**

Nazarjan, G. A. The relations of some complexity characteristics of sets of Boolean functions. (Russian. Armenian summary) **(82g:03073)**

Novikov, S. V. Method of implementing a system of partial Boolean functions by means of an arrangement of programmable logic arrays. **(82i:68044)**
Olives, J. *See* **Goles, E., (82c:68033)**
Petreschi, Rossella (*with* Simeone, Bruno) A switching algorithm for the solution of quadratic Boolean equations. **(82e:68044a)**
(*with* Simeone, Bruno) Erratum: "A switching algorithm for the solution of quadratic Boolean equations". **(82e:68044b)**
Puchalka, Tadeusz ★Teoria systemów przełączających. Część III. (Polish) [Theory of switching systems. Part III] **(82h:68043)**
Robinson, John P. (*with* Cohn, Martin) Counting sequences. **(82e:94059)**
Rosenberg, Ivo Linear decompositions of positive real function of binary arguments. **(82a:06032)**
Simeone, Bruno *See* **Hammer, Peter L., (82d:05090); Petreschi, Rossella, (82e:68044a)** *and* **(82e:68044b)**
Streppel, Dieter ★Entwurf von Schaltnetzen und asynchronen Schaltwerken mit Hilfe der Partitionentheorie. (German) [Design of switching networks and asynchronous circuits using partition theory] **(82a:68111)**
Suprun, V. P. On the implementation of a fundamental symmetrical multiport. **(82h:94027)**
Takahashi, Haruhisa *See* **Akimaru, Haruo, (82g:33037)**
Tăndăreanu, Nicolae On generalized Boolean functions. I. **(82i:06019)**
Toueg, Sam (*with* Ullman, Jeffrey D.) Deadlock-free packet switching networks. **(82h:68040)**
Ullman, Jeffrey D. *See* **Toueg, Sam, (82h:68040)**
Valiant, Leslie G. Negation can be exponentially powerful. **(82a:68088)**
Wong, C. K. *See* **Bongiovanni, G.; et al., (82d:94004)**

94C15 Applications of graph theory [See also 05Cxx, 68D90, 68E10.]

Abraham, Jacob A. (*with* Gajski, Daniel D.) Design of testable structures defined by simple loops. **82m:94065**
Al-Kabbani, A. S. S. *See* **Bowron, P., 82d:94086**
d'Antona, Ottavio (*with* Kung, Joseph P. S.) Coherent orientations and series-parallel networks. **82i:94037**
Bertsekas, Dimitri P. *See* **Gafni, Eli M., 82g:94030**
Bhattacharyya, S. P. *See* **Mitra, Sanjit K., 82h:94035**
Bowron, P. (*with* Al-Kabbani, A. S. S.) Unification of active filters with passive sections having a single internal node. **82d:94086**
Char, J. P. (*with* Dadheech, S. D.) The edge-numbering convention: an insight into circuit formation. **82a:94126**
Chua, Leon O. *See* **Matsumoto, Takashi; et al., 82f:94029**
Chung, F. R. K. (*with* Hwang, F. K.) The connection patterns of two complete binary trees. **82h:94045**
Čurkin, V. I. Optimal distribution of information in communications networks. (Russian) **82e:94073**
Dadheech, S. D. *See* **Char, J. P., 82a:94126**
Ebert, Jürgen ★Erreichbarkeits-konsistente Vergröberungen von Netzen. (German) [Reachability-consistent coarsening of networks] **82m:94066**
Ektare, A. B. A graph-theoretic approach to fanout-free functions. **82h:94033**
Engel, A. E. (*with* Mlynski, D. A.) Maximal partitioning of graphs. (*See* **82e:94002**)
Farley, Arthur M. Broadcast time in communication networks. **82h:94046**
Fary, Istvan Une généralisation de la structure abstraite des circuits électriques. (English summary) [A generalization of the abstract structure of electrical circuits] **82j:94028**
Friedman, A. D. *See* **Simoncini, L., 82e:94074**
Gafni, Eli M. (*with* Bertsekas, Dimitri P.) Distributed algorithms for generating loop-free routes in networks with frequently changing topology. **82g:94030**
Gajski, Daniel D. *See* **Abraham, Jacob A., 82m:94065**
Haigh, John Random exchanges of information. **82j:94029**
Hwang, F. K. Blocking probabilities for a class of spiderweb channel graphs. **82g:94031**
See also **Chung, F. R. K., 82h:94045**
Ibaraki, Toshihide (*with* Kameda, Tsunehiko; Toida, Shunichi) On minimal test sets for locating single link failures in networks. **82d:94087**
Ichiraku, Shigeo *See* **Matsumoto, Takashi; et al., 82f:94029**
Kajitani, Yoji *See* **Ozawa, Takao,** (*See* **82e:94002**)
Kameda, Tsunehiko *See* **Ibaraki, Toshihide; et al., 82d:94087**
Kawakami, Hiroshi *See* **Matsumoto, Takashi; et al., 82f:94029**
Koh, J. Y. *See* **Murata, Tadao,** (*See* **82e:94002**)
Kukuškin, B. A. *See* **Nemoločnov, O. F.; et al., 82m:94067**
Kung, Joseph P. S. *See* **d'Antona, Ottavio, 82i:94037**
Manber, Udi System diagnosis with repair. **82b:94047**
Matsumoto, Takashi (*with* Chua, Leon O.; Kawakami, Hiroshi; Ichiraku, Shigeo) Geometric properties of dynamic nonlinear networks: transversality, local-solvability and eventual passivity. **82f:94029**
Militaru, V. A method of gradual generating the co-trees of a linear graph. (French summary) **82h:94034**
Mišić, V. B. Sensitivity evaluation for multiple feedback active filters. **82d:94088**
Mitra, Sanjit K. (*with* Bhattacharyya, S. P.) Topology equations for closed Coates' flow graph. **82h:94035**
Mlynski, D. A. *See* **Engel, A. E.,** (*See* **82e:94002**)
Murata, Tadao (*with* Koh, J. Y.) Reduction and expansion of live and safe marked graphs. (*See* **82e:94002**)
Nemoločnov, O. F. (*with* Zvjagin, V. F.; Kukuškin, B. A.) Methods of identifying and utilizing regular properties of logic circuits in test synthesis. **82m:94067**
Ozawa, Takao (*with* Kajitani, Yoji) Diagnosability of linear active networks. (*See* **82e:94002**)
Planality testing for IC layout with constraints for pin order and congestion between pins. (*See* **82d:93001**)
Petersen, Bjørn Investigating solvability and complexity of linear active networks by means of matroids. **82h:94029**
Recski, András Applications of graph theory to network analysis—a survey. **82d:94089**
Reibiger, Albrecht (*with* Straube, Bernd) Isomorphiedefinitionen für allgemeine Netzwerke. **82c:94015**
Schröck, Werner Ein Modell zur Konstruktion optimaler Konfigurationen von Rechensystemen. [A model for constructing optimal configurations of computing systems] **82i:94038**
Simoncini, L. (*with* Friedman, A. D.) Concurrent diagnosis in parallel systems. **82e:94074**
Starzyk, J. Signal-flow-graph analysis by decomposition method. **82a:94127**
Straube, Bernd *See* **Reibiger, Albrecht, 82c:94015**
Swamy, M. N. S. (*with* Thulasiraman, K.) ★Graphs, networks, and algorithms. **82j:94030**
Taconet, B. A new method for asynchronous sequential systems design: synthesis by partition of the states graph. (French and German summaries) **82m:94068**
Thulasiraman, K. *See* **Swamy, M. N. S., 82j:94030**
Toida, Shunichi *See* **Ibaraki, Toshihide; et al., 82d:94087**
Uhlig, Dietmar On the synthesis of self-correcting networks. **82b:94048**
Valiant, Leslie G. Universality considerations in VLSI circuits. **82a:94128**
Zvjagin, V. F. *See* **Nemoločnov, O. F.; et al., 82m:94067**

secondary classifications:

Aggarwal, K. K. *See* **Soi, Inder M., (82m:68090)**
Bahar, Leon Y. *See* **Massimo, F. M.; et al., (82f:94020)**
Bauer, D. (*with* Suffel, C. L.; Boesch, Frank; Tindell, Ralph) Connectivity extremal problems and the design of reliable probabilistic networks. **(82m:05063)**
Boesch, Frank (*with* Suffel, C. L.) Realizability of p-point graphs with prescribed minimum degree, maximum degree, and line connectivity. **(82c:05056)**
See also **Bauer, D.; et al., (82m:05063)**
Bowden, K. G. An introduction to homological systems theory: topological analysis of invariant system zeros. **(82g:93020)**
Chakravarty, A. K. Partitioning acyclic stochastic precedence graph. **(82j:68056)**
Cockayne, E. J. (*with* Thomason, Andrew) Optimal multimessage broadcasting in complete graphs. **(82c:05080)**
Entringer, Roger C. *See* **Rawlinson, Kim T., (82d:05073)**
Even, Shimon ★Graph algorithms. **(82e:68066)**
Farley, Arthur M. (*with* Proskurowski, Andrzej) Gossiping in grid graphs. **(82f:05058)**
Foulds, L. R. *See* **Robinson, D. F., (82m:05041)**
Grimbleby, J. B. Algorithm for finding the common spanning trees of two graphs. **(82h:68087)**
Gubnickiĭ, S. B. *See* **Zaĭcev, I. D.; et al., (82h:92055)**
Imase, Makoto (*with* Itoh, Masaki) Design to minimize diameter on building-block network. **(82h:68088)**
Itoh, Masaki *See* **Imase, Makoto, (82h:68088)**
Jaffe, Jeffrey M. Bottleneck flow control. **(82h:68030)**
Jaglom, I. M. ★Булева структура и ее модели. (Russian) [Boolean structure and its models] **(82g:06023)**
Kawamoto, Tatsuya *See* **Shinoda, Shoji,** (*See* **82d:93001**)
Kel'bert, M. Ja. The existence of the limiting distributions in some networks of communication of messages. **(82e:60161)**
Kevorkian, Aram K. Partitioning of the minimum essential set construction problem. **(82e:05072)**
Klimov, V. E. (*with* Neevina, N. P.) An algorithm for stacking a planar graph on concentric circles. (Russian) **(82a:68122)**
Krishnaprasad, P. S. On the geometry of linear passive systems. **(82i:93039)**
Kwatny, Harry G. *See* **Massimo, F. M.; et al., (82f:94020)**
Lauther, U. Application of graph-theoretical methods to computeraided design of large-scale integrated circuits. (German summary) **(82a:68123)**
Lavaud, Michel Estimates of general Mayer graphs. II. Long range behavior of graphs with two root points occurring in the theory of ionized systems. **(82f:82049)**
Lev, Gavriela Freund (*with* Pippenger, Nicholas; Valiant, Leslie G.) A fast parallel algorithm for routing in permutation networks. **(82m:68055)**
Lozovanu, D. D. Optimal subgraphs in a weighted digraph. **(82k:05055)**
Mandojana, J. C. *See* **Meditch, James S., (82f:68009)**
Massimo, F. M. (*with* Kwatny, Harry G.; Bahar, Leon Y.) Derivation of the Brayton-Moser equations from a topological mixed potential function. **(82f:94020)**
Matsui, Kineo (*with* Pradhan, D. K.) A fault-diagnosis technique for closed flow networks. **(82a:68044)**
Meditch, James S. (*with* Mandojana, J. C.) A decentralized algorithm for optimal routing in data-communication networks. **(82f:68009)**
Mirchandani, Pitu B. (*with* Oudjit, Aissa) Localizing 2-medians on probabilistic and deterministic tree networks. **(82a:90049)**
Neevina, N. P. *See* **Klimov, V. E., (82a:68122)**
Nowicki, T. (*with* Stańczak, W.) Partitioning a set of elements into subsets due to their similarity. (French summary) (*See* **82f:62004**)
Osyczka, A. Multicriterion network optimization problem. (German summary) **(82f:90091)**
Oudjit, Aissa *See* **Mirchandani, Pitu B., (82a:90049)**
Perl, Yehoshua (*with* Yesha, Yaacov) Mean flow scheduling and optimal construction of a treelike communication network. **(82h:68036)**
Pippenger, Nicholas *See* **Lev, Gavriela Freund; et al., (82m:68055)**
Pradhan, D. K. *See* **Matsui, Kineo, (82a:68044)**
Proskurowski, Andrzej *See* **Farley, Arthur M., (82f:05058)**
Rawlinson, Kim T. (*with* Entringer, Roger C.) Class of graphs with restricted neighborhoods. **(82d:05073)**
Reinert, Dietmar ★Prüftheorie diskreter Systeme. (German) [Fault testing of discrete systems] **(82c:68002)**
Robinson, D. F. (*with* Foulds, L. R.) Comparison of phylogenetic trees. **(82m:05041)**
Shinoda, Shoji (*with* Kawamoto, Tatsuya) Central trees and critical sets. (*See* **82d:93001**)
Soi, Inder M. (*with* Aggarwal, K. K.) On shortest-path algorithms in the topological design of computer networks: a comparative study. **(82m:68090)**

Stańczak, W. *See* **Nowicki, T., (*See* 82f:62004)**
Suffel, C. L. *See* **Boesch, Frank, (82c:05056)** *and* **Bauer, D.; et al., (82m:05063)**
Thomason, Andrew *See* **Cockayne, E. J., (82c:05080)**
Tindell, Ralph *See* **Bauer, D.; et al., (82m:05063)**
Vainer, V. G. *See* **Zaicev, I. D.; et al., (82h:92055)**
Valiant, Leslie G. *See* **Lev, Gavriela Freund; et al., (82m:68055)**
Yamasaki, Maretsugu Biharmonic Green function of an infinite network. **(82f:31005)**
Yesha, Yaacov *See* **Perl, Yehoshua, (82b:68036)**
Zaicev, I. D. (*with* Vaĭner, V. G.; Gubnickiĭ, S. B.) Algorithms for solution of various modifications of the "problem of crossing the road". (Russian) **(82h:92055)**

94C30 Applications of design theory [See also 05Bxx.]

Baccigalupi, A. Electrical network simulation by a parallel DDA emulator. **82a:94129**
Chung, F. R. K. Zone-balanced networks and block designs. **82m:94069**
Hayes, John P. *See* **Sridhar, Thirumalai, 82m:94072**
Holzmann, Carlos A. Binary netoids. (*See* **82e:94002**)
Hwang, F. K. (*with* Liang, T. C.) The construction for symmetrical zone-balanced networks. **82m:94070**
Liang, T. C. *See* **Hwang, F. K., 82m:94070**
Parker, D. Stott, Jr. Correction to: "Combinatorial merging and Huffman's algorithm" [IEEE Trans. Comput. **28** (1979), no. 5, 365–367; MR 80g:94111]. **82g:94032**
Parthasarathy, R. (*with* Reddy, Sudhakar M.) A testable design of iterative logic arrays. **82m:94071**
Reddy, Sudhakar M. *See* **Parthasarathy, R., 82m:94071**
Sakuma, Hiroshi *See* **Shinoda, Shoji; et al., (*See* 82e:94002)**
Shapiro, R. M. The application of general net theory—a personal history. **82b:94049**
Shinoda, Shoji (*with* Sakuma, Hiroshi; Yasuda, Tomoshige) Semimatroids. (*See* **82e:94002**)
Sridhar, Thirumalai (*with* Hayes, John P.) Design of easily testable bit-sliced systems. **82m:94072**
Yasuda, Tomoshige *See* **Shinoda, Shoji; et al., (*See* 82e:94002)**

secondary classifications:

Bongiovanni, G. (*with* Coppersmith, D.; Wong, C. K.) An optimum time slot assignment algorithm for an SS/TDMA system with variable number of transponders. **(82d:94004)**
Brayton, Robert King (*with* Spence, Robert) ★Sensitivity and optimization. **(82c:94010)**
Coppersmith, D. *See* **Bongiovanni, G.; et al., (82d:94004)**
Fujishige, Satoru *See* **Iri, Masao, (82a:05039)**
Hajj, Ibrahim N. (*with* Yang, Ping; Trick, Timothy N.) Avoiding zero pivots in the modified nodal approach. **(82g:94024)**
Iri, Masao (*with* Fujishige, Satoru) Use of matroid theory in operations research, circuits and systems theory. **(82a:05039)**
Semotjuk, M. V. ★Алгоритмы выполнения арифметических операций над комплексными числами в декартовой системе координат. (Russian) [Algorithms for carrying out arithmetic operations over complex numbers in the Cartesian coordinate system] **(82h:68052)**
Spence, Robert *See* **Brayton, Robert King, (82c:94010)**
Trick, Timothy N. *See* **Hajj, Ibrahim N.; et al., (82g:94024)**
Wong, C. K. *See* **Bongiovanni, G.; et al., (82d:94004)**
Yang, Ping *See* **Hajj, Ibrahim N.; et al., (82g:94024)**

94C99 None of the above, but in this section

Brassard, J.-P. *See* **Gecsei, Jan, 82a:94130**
El Gamal, Abbas A. Two-dimensional stochastic model for interconnections in master slice integrated circuits. **82d:94090**
Fujimoto, H. (*with* Ishii, J.; Ozaki, H.) Multivariable Richards' transformations. (*See* **82e:94002**)
Gecsei, Jan (*with* Brassard, J.-P.) The topology of cellular partitioning networks. **82a:94130**
Hong, Se June *See* **Ostapko, Daniel L., 82k:94030**
Ishii, J. *See* **Fujimoto, H.; et al., (*See* 82e:94002)**
Karpovsky, Mark (*with* Su, Stephen Y. H.) Correction to: "Detection and location of input and feedback bridging faults among input and output lines" [IEEE Trans. Comput. **29** (1980), no. 6, 523–527; MR 81g:94076]. **82a:94131**
Kuh, Ernest S. *See* **Tsukiyama, Shuji; et al., 82a:94132**
Meyer, Gerard G. L. A fault diagnosis algorithm for asymmetric modular architectures. **82d:94091**
Ostapko, Daniel L. (*with* Hong, Se June) Fault analysis and test generation for programmable logic arrays (PLAs). **82k:94030**
Ozaki, H. *See* **Fujimoto, H.; et al., (*See* 82e:94002)**
Ruiz Shulcloper, José Test construction for polyvalent matrices. (Spanish) **82m:94073**
Shirakawa, Isao *See* **Tsukiyama, Shuji; et al., 82a:94132**
Su, Stephen Y. H. *See* **Karpovsky, Mark, 82a:94131**
Tsukiyama, Shuji (*with* Kuh, Ernest S.; Shirakawa, Isao) An algorithm for single-row routing with prescribed street congestions. **82a:94132**

secondary classifications:

Ando, T. Limit of iterates of cascade addition of matrices. **(82h:93004)**
Beneš, Václav E. Blocking states in connecting networks made of square switches arranged in stages. **(82d:94067)**
Carter, W. C. (*with* Wadia, A. B.) Design and analysis of codes and their self-checking circuit implementations for correction and detection of multiple *b*-adjacent errors. **(82a:94076)**
Chaiken, Seth (*with* Kleitman, Daniel J.; Saks, Michael E.; Shearer, James B.) Covering regions by rectangles. **(82m:52007)**
Fujiwara, Eiji *See* **Kaneda, Shigeo, (82a:94069)**
Kaneda, Shigeo (*with* Fujiwara, Eiji) Single byte error correcting-double byte error detecting codes for memory systems. **(82a:94069)**
Kleitman, Daniel J. *See* **Chaiken, Seth; et al., (82m:52007)**
Kubíček, L. Characterization of the accuracy of geodetic networks. **(82g:86014)**
Markowsky, George (*with* Moss, Franklin H.) An evaluation of local path ID swapping in computer networks. **(82a:68010)**
Moss, Franklin H. *See* **Markowsky, George, (82a:68010)**
Pelkowitz, Lionel Frequency domain analysis of wraparound error in fast convolution algorithms. **(82e:94011)**
Randell, Brian Fault tolerant computing systems. **(82e:68007)**
Saks, Michael E. *See* **Chaiken, Seth; et al., (82m:52007)**
Shearer, James B. *See* **Chaiken, Seth; et al., (82m:52007)**
Wadia, A. B. *See* **Carter, W. C., (82a:94076)**
Yamasaki, Maretsugu Quasiharmonic classification of infinite networks. **(82g:31010)**

94D05 Fuzzy sets and logic (in connection with questions of Section 94) [See also 03B52, 03E72.]

Ben-David, Menashe *See* **Clark, Carl M.; et al., 82a:94133**
Bhat, Kabekode V. S. Minimization of disjunctive normal forms of fuzzy logic functions. **82b:94050**
Celyh, A. N. *See* **Melihov, A. N.; et al., 82m:94074**
Clark, Carl M. (*with* Ben-David, Menashe; Kandel, Abraham) On the enumeration of distinct fuzzy switching functions. **82a:94133**
Dussauchoy, Alain Transitivité max Δ de relations floues définies à partir de l'information transmise entre deux variables aléatoires. (English summary) (*See* **82f:62004**)
Hirota, Kaoru (*with* Iijima, Taizo) Logical basis in probabilistic set theory—probabilistic expression of ambiguity and subjectivity. **82f:94030**
Hisdal, Ellen Developments in the wake of the theory of possibility. **82a:94134**
Iijima, Taizo *See* **Hirota, Kaoru, 82f:94030**
Kandel, Abraham *See* **Clark, Carl M.; et al., 82a:94133**
Korovin, S. Ja. *See* **Melihov, A. N.; et al., 82m:94074**
Melihov, A. N. (*with* Korovin, S. Ja.; Celyh, A. N.) Some principles of program realization for fuzzy control algorithms. (Russian) **82m:94074**
Riera, T. *See* **Trillas Ruiz, Enrique, 82j:94031**
Trillas Ruiz, Enrique (*with* Riera, T.) Note for the study of a concept of multivalued entropy for a finite fuzzy set. **82j:94031**
Wu, Xue Mou Fuzziness, reliability and pansystems analysis. III. (Chinese) **82g:94033a**
Fuzziness, reliability and pansystems analysis. IV. (Chinese) **82g:94033b**
Yager, Ronald R. An approach to inference in approximate reasoning. **82a:94135**
Zadeh, Lotfi A. Fuzzy sets and information granularity. **82a:94136**

secondary classifications:

Atanasiu, Adrian Tree-codifications and convolutional codes. **(82d:94042)**
Bandler, Wyllis (*with* Kohout, Ladislav J.) Fuzzy power sets and fuzzy implication operators. **(82d:03086)**
Banon, G. Distinction between several subsets of fuzzy measures. **(82i:28003)**
Bezdek, James C. ★Pattern recognition with fuzzy objective function algorithms. **(82j:68090)**
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1980 MATHEMATICS SUBJECT CLASSIFICATION

Compiled in the Editorial Offices of MATHEMATICAL REVIEWS and ZENTRALBLATT FÜR MATHEMATIK

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Reprinted from: Annual Index—1981

1980 MATHEMATICS SUBJECT CLASSIFICATION

This is a corrected reprinting of the 1980 Mathematics Subject Classification. The corrections carried out since the second printing (in the 1979 Mathematical Reviews Index) include the following:

Section 03–XX has undergone some revision; in particular, the entries 03B48, 03B65, 03C07, 03C13, 03C57, 03C62, 03C68, 03E47, 03F07 and 03F40 are new. Section 78A57 was relabeled 78A97; section 81H05 was expanded into 81Hxx, with three subheadings. The remaining new entries are: 05B07; 10A50; 17A36, 17A75, 17D15, 17D20, 17D25, 17D92; 20F17; 31C35; 35J85, 35K85, 35L85; 41A80; 53C12; 57N13, 57Q12, 57R19; 65L50, 65L60, 65M50, 65M60, 65N50; 68D22; 70K40, 70K50, 70Q05; 73C60, 73D50, 73D70, 73E50, 73K03; 76A60, 76B40, 76D07; 78A60, 78A70; 80A32; 81D30, 81E20, 81E25; 82A31, 82A43, 82A51, 82A57, 82A68; 83C47, 83E50; 86A60; 90B50. There are 40 entries in which small changes in the description or additions in the cross references were carried out.

Instructions for using the 1980 Mathematics Subject Classification

These instructions apply uniformly to all fields listed. The main purpose of the classification is to help all readers to find the items of present or potential interest to them as readily as possible—in MR, in Zbl, or anywhere else where this classification system is used. The review of a paper or book should be printed in the section where it will receive the broadest attention from all readers possibly interested in it—these include both people working in that area and people who are familiar with that area and apply its results and methods elsewhere (inside or outside of mathematics). It will be extremely useful for both readers and classifiers to familiarize themselves with the entire classification system and thus to become aware of all the classifications of possible interest to them.

Every paper or book reviewed in MR receives precisely one "primary" classification number; it is simply the number of the section in which the review of the item will be printed. This section should be the one that covers the principal contribution. When a paper contains several principal contributions in different areas, the primary classification should cover the "most important" among them. A paper or book may receive one or several "secondary" classification numbers (or "cross-references"), to cover any remaining principal contributions, ancillary results, motivation or origin of the problems discussed, intended or potential field of application, or other significant aspects worthy of notice.

The "primary" principal contribution should be the one including the most important part of the work actually done in the paper. For example, a paper whose main overall content is the solution of a problem in graph theory, which arose in computer science and whose solution is (perhaps) at present only of interest to computer scientists, should receive its primary classification in 05C and a cross-reference in 68; conversely, papers whose overall content lies mainly in computer science will receive a primary classification in 68, even if they make heavy use of graph theory and prove several new graph theoretic results along the way.

For any paper or book with its primary classification in (i.e., printed in) an "applied" section (68 through 94), it is recommended to give a cross-reference in some mathematics section(s) (00 through 65) whenever that is appropriate. Do not use 00A89 as a primary classification.

There are two types of cross-references given after many classifications in the list. The first type is of the form "{For A, see X}"; if this appears in section Y, it means that for contributions described by A one should usually assign the classification X, not Y. The other type of cross-reference merely points out related classifications; it is of the form "[See also...]", "[See mainly...]", etc., and the classifications listed in the brackets may, but need not, be added to the classification of a paper, or they may be used in place of the classification where the cross-reference is given. The classifier will have to judge which classification is the most appropriate for the paper at hand.

00–XX GENERAL

- 00–01 Elementary exposition, textbooks
- 00–02 Advanced exposition (research surveys, monographs, etc.)
- 00A05 General mathematics
- 00A06 Mathematics for nonmathematicians (engineering, social sciences, etc.)
- 00A07 Problem books
- 00A10 Collections of papers; proceedings of conferences of general interest, translation volumes, etc. [See also 01A75.]
- 00A15 General bibliographies
- 00A20 Dictionaries and other general reference works
- 00A22 Formularies
- 00A25 Methodology and philosophy of mathematics
- 00A69 General applied mathematics {For cross-reference to reviews printed in Sections 70 through 86, use 00A89.}; theory of mathematical modeling
- 00A89 Physics (to be used in cross-references to reviews printed in Sections 70 through 86, only when no other numbers from Sections 00 through 65 are suitable)
- 00A99 Miscellaneous topics

01–XX HISTORY AND BIOGRAPHY [See also the classification number –03 in the other sections.]

- 01–01 Elementary exposition, textbooks
- 01–02 Advanced exposition (research surveys, monographs, etc.)
- 01–06 Proceedings, conferences, etc.
- 01A05 General histories, source books
- 01A10 Primitive, Paleolithic, Neolithic
- 01A15 Pre-Greek, Egyptian
- 01A17 Babylonian
- 01A20 Greek
- 01A25 China
- 01A27 Japan
- 01A29 Southeast Asia
- 01A30 Islam (Medieval)
- 01A32 India
- 01A35 Medieval
- 01A40 15th and 16th centuries, Renaissance
- 01A45 17th century
- 01A50 18th century
- 01A55 19th century
- 01A60 20th century
- 01A65 Contemporary
- 01A70 Biographies, obituaries, personalia
- 01A72 Schools of mathematics
- 01A73 Universities
- 01A74 Other institutions and academies
- 01A75 Collected or selected works; reprintings or translations of classics
- 01A80 Sociology (and profession) of mathematics
- 01A99 Miscellaneous topics

03–XX MATHEMATICAL LOGIC AND FOUNDATIONS

- 03–01 Elementary exposition, textbooks
- 03–02 Advanced exposition (research surveys, monographs, etc.)
- 03–03 Historical (must also be assigned at least one classification number from Section 01)
- 03–04 Explicit machine computation and programs (not the theory of computation or programming)
- 03–06 Proceedings, conferences, etc.
- **03A05 Philosophical and critical**
- **03Bxx General logic**
- 03B05 Classical propositional logic
- 03B10 Pure first-order logic (including many-sorted logic)
- 03B15 Higher-order logic and type-theory
- 03B20 Fragments of classical logic
- 03B25 Decidability of theories and sets of sentences
- 03B30 Foundations and axiomatics of classical theories
- 03B35 Mechanization of proofs and logical operations
- 03B40 Combinatory logic and λ-calculus
- 03B45 Modal and tense logic, entailment, etc.
- 03B48 Probability and inductive logic
- 03B50 Many-valued logic
- 03B52 Fuzzy logic [See also 94D05.]

03B55 Intermediate logics
03B60 Other nonclassical logic
03B65 Logic of natural languages [See also 68Fxx.]
03B99 None of the above, but in this section

03Cxx Model theory
03C05 Equational classes, universal algebra [See also 08Axx.]
03C07 Basic properties of first-order languages and structures
03C10 Quantifier elimination and related topics
03C13 Finite models
03C15 Denumerable models
03C20 Ultraproducts and related constructions
03C25 Model-theoretic forcing
03C30 Other model constructions
03C35 Categoricity and completeness of theories
03C40 Interpolation and preservation theorems; definability
03C45 Stability and related concepts
03C50 Models with special properties (saturated, rigid, etc.)
03C52 Properties of classes of models
03C55 Set-theoretic model theory
03C57 Recursion-theoretic model theory [See also 03D45.]
03C60 Model-theoretic algebra [See also 08C10.]
03C62 Models of arithmetic and set theory [See also 03Hxx.]
03C65 Models of other specific theories
03C68 Other classical first-order model theory
03C70 Logic on admissible sets
03C75 Other infinitary logic
03C80 Logic with extra quantifiers and operators [See also 03B45.]
03C85 Second- and higher-order model theory
03C90 Nonclassical models (Boolean-valued, sheaf, etc.)
03C95 Abstract model theory
03C99 None of the above, but in this section

03Dxx Recursion theory
03D03 Thue and Post systems, etc.
03D05 Automata and formal grammars in connection with logical questions [See also 18B20, 68Dxx, 68F10.]
03D10 Turing machines and related notions [See also 68C40.]
03D15 Complexity of computation
03D20 Recursive functions and relations, subrecursive hierarchies
03D25 Recursively enumerable sets and degrees
03D30 Degrees and reducibilities
03D35 Undecidability and degrees of sets of sentences
03D40 Word problems, etc. [See also 06B25, 08A50, 20F10.]
03D45 Theory of numerations, effectively presented structures [See also 03C57.]
03D50 Recursive equivalence types of sets and structures, isols
03D55 Hierarchies
03D60 Recursion theory on ordinals, admissible sets, etc.
03D65 Higher-type and set recursion
03D70 Inductive definability
03D75 Abstract and axiomatic recursion theory
03D80 Applications
03D99 None of the above, but in this section

03Exx Set theory [See also 04–XX.]
03E05 Combinatorial set theory
03E10 Ordinal and cardinal numbers
03E15 Descriptive set theory
03E20 Other classical set theory
03E25 Axiom of choice and related propositions
03E30 Axiomatics of classical set theory and its fragments
03E35 Consistency and independence results
03E40 Other aspects of forcing and Boolean-valued models
03E45 Constructibility, ordinal definability, and related notions
03E47 Other notions of set-theoretic definability
03E50 Continuum hypothesis and Martin's axiom [See also 54A25.]
03E55 Large cardinals
03E60 Determinacy and related principles which contradict the axiom of choice
03E65 Other hypotheses and axioms
03E70 Nonclassical and second-order set theories
03E72 Fuzzy sets [See also 54A40, 94D05.]
03E75 Applications
03E99 None of the above, but in this section

03Fxx Proof theory and constructive mathematics
03F05 Cut-elimination and normal-form theorems
03F07 Structure of proofs
03F10 Functionals in proof theory
03F15 Recursive ordinals and ordinal notations
03F20 Complexity of proofs
03F25 Relative consistency and interpretations
03F30 First-order arithmetic and fragments
03F35 Second- and higher-order arithmetic and fragments [See also 03E30, 03E70.]
03F40 Gödel numberings in proof theory
03F50 Metamathematics of constructive systems
03F55 Intuitionistic mathematics
03F60 Recursive analysis
03F65 Other constructive mathematics
03F99 None of the above, but in this section

03Gxx Algebraic logic
03G05 Boolean algebras [See also 06Exx.]
03G10 Lattices and related structures [See also 06Bxx.]
03G12 Quantum logic [See also 81B10.]
03G15 Cylindric and polyadic algebras; relation algebras
03G20 Łukasiewicz and Post algebras
03G25 Other algebras related to logic
03G30 Categorical logic, topoi [See also 18B25.]
03G99 None of the above, but in this section

03Hxx Nonstandard models [See also 03C62.]
03H05 Infinitesimal analysis in pure mathematics [See also 26E35, 30G10, 54J05.]
03H10 Other applications of infinitesimal analysis
03H15 Nonstandard models of arithmetic [See also 10N15, 12L15, 13L05.]
03H20 Other nonstandard models [See also 54J05.]
03H99 None of the above, but in this section

04–XX SET THEORY [See also 03Exx.]
04–01 Elementary exposition, textbooks
04–02 Advanced exposition (research surveys, monographs, etc.)
04–03 Historical (must also be assigned at least one classification number from Section 01)
04–04 Explicit machine computation and programs (not the theory of computation or programming)
04–06 Proceedings, conferences, etc.
04A05 Relations, functions [See also 08A02.]
04A10 Transfinite numbers
04A15 Descriptive set theory; Borel classifications, Suslin schemes, etc. [See also 03E15, 28A05, 54H05.]
04A20 Combinatorial [See also 05A05.]; filters
04A25 Axiom of choice and equivalent propositions (Zorn's lemma, etc.) [See also 03E25.]
04A30 Continuum hypothesis, generalized continuum hypothesis [See also 03E50, 54A25.]
04A99 Miscellaneous topics

05–XX COMBINATORICS {For finite fields, see 12Cxx.}
05–01 Elementary exposition, textbooks
05–02 Advanced exposition (research surveys, monographs, etc.)
05–03 Historical (must also be assigned at least one classification number from Section 01)
05–04 Explicit machine computation and programs (not the theory of computation or programming)
05–06 Proceedings, conferences, etc.

05Axx Classical combinatorial problems
05A05 Combinatorial choice problems (subsets, representatives, permutations)
05A10 Factorials, binomial coefficients, combinatorial functions
05A15 Combinatorial enumeration problems, generating functions
05A17 Partitions [See also 10A45.]
05A19 Combinatorial identities
05A20 Combinatorial inequalities
05A99 None of the above, but in this section

05Bxx Designs and configurations {For applications of design theory, see 94C30.}
05B05 Block designs [See also 51E05, 62K10.]
05B07 Steiner triple systems

05B10 Difference sets (number-theoretic, group-theoretic, etc.) [See also 10L05.]
05B15 Orthogonal arrays, Latin squares, Room squares
05B20 Matrices (incidence, Hadamard, etc.)
05B25 Finite geometries [See also 51D20, 51Exx.]
05B30 Other designs, configurations [See also 51E30.]
05B35 Matroids, geometric lattices
05B40 Packing and covering [See also 10E30, 52A45.]
05B45 Tessellation and tiling problems
05B50 Polyominoes
05B99 None of the above, but in this section

05Cxx Graph theory {For applications of graphs, see 68D90, 68E10, 94C15.}
05C05 Trees
05C10 Topological graph theory, imbedding [See also 57M15, 57M25.]
05C15 Chromatic theory of graphs and maps
05C20 Directed graphs (digraphs)
05C25 Graphs and groups [See also 20F32.]
05C30 Enumeration of graphs and maps
05C35 Extremal problems
05C38 Paths and cycles
05C40 Connectivity
05C45 Eulerian and Hamiltonian graphs
05C50 Graphs and matrices
05C55 Generalized Ramsey theory
05C60 Reconstruction conjecture
05C65 Hypergraphs
05C70 Factorization, matching, covering and packing
05C75 Structural characterization of types of graphs
05C99 None of the above, but in this section

06–XX ORDER, LATTICES, ORDERED ALGEBRAIC STRUCTURES [See also 18B35.]

06–01 Elementary exposition, textbooks
06–02 Advanced exposition (research surveys, monographs, etc.)
06–03 Historical (must also be assigned at least one classification number from Section 01)
06–04 Explicit machine computation and programs (not the theory of computation or programming)
06–06 Proceedings, conferences, etc.

06Axxx Ordered sets
06A05 Total order
06A10 Partial order
06A12 Semilattices [See also 20M10.]
06A15 Galois correspondences, closure operators
06A23 Complete lattices, completions
06A99 None of the above, but in this section

06Bxx Lattices [See also 03G10.]
06B05 Structure theory
06B10 Ideals, congruence relations
06B15 Representation theory
06B20 Varieties of lattices
06B25 Free lattices, projective lattices, word problems [See also 03D40, 08A50, 20F10.]
06B30 Topological lattices, order topologies [See also 06F30, 54F05, 54H12.]
06B99 None of the above, but in this section

06Cxx Modular lattices, complemented lattices
06C05 Modular lattices, Desarguesian lattices
06C10 Semimodular lattices, geometric lattices
06C15 Complemented lattices, orthocomplemented lattices
06C20 Complemented modular lattices, continuous geometries
06C99 None of the above, but in this section

06Dxx Distributive lattices
06D05 Structure and representation theory
06D10 Complete distributivity
06D15 Pseudocomplemented lattices
06D20 Heyting algebras [See also 03Gxx.]
06D25 Post algebras [See also 03G20.]
06D30 De Morgan algebras, Łukasiewicz algebras [See also 03G20.]
06D99 None of the above, but in this section

06Exx Boolean algebras [See also 03G05.]
06E05 Structure theory
06E10 Chain conditions, complete algebras
06E15 Topological representation
06E20 Boolean rings [See also 16A30, 16A32.]
06E99 None of the above, but in this section

06Fxx Ordered structures [See also 22A26, 54F05.]
06F05 Ordered semigroups [See also 20Mxx.]
06F10 Noether lattices
06F15 Ordered groups [See also 20F60.]
06F20 Ordered abelian groups, ordered linear spaces [See also 46A40.]
06F25 Ordered rings, algebras, modules {For ordered fields, see 10M15, 12J15; see also 13J25, 16A86.}
06F30 Topological lattices, order topologies [See also 06B30, 54F05, 54H12.]
06F99 None of the above, but in this section

08–XX GENERAL MATHEMATICAL SYSTEMS

08–01 Elementary exposition, textbooks
08–02 Advanced exposition (research surveys, monographs, etc.)
08–03 Historical (must also be assigned at least one classification number from Section 01)
08–04 Explicit machine computation and programs (not the theory of computation or programming)
08–06 Proceedings, conferences, etc.

08Axx Universal algebra [See also 03C05.]
08A02 Relational systems, laws of composition
08A05 Structure theory
08A30 Subalgebras, congruence relations
08A35 Automorphisms, endomorphisms
08A40 Operations, polynomials, primal algebras
08A45 Equational compactness
08A50 Word problems [See also 03D40, 20F10.]
08A55 Partial algebras
08A60 Unary algebras
08A65 Infinitary algebras
08A99 None of the above, but in this section

08Bxx Varieties
08B05 Equational logic, Mal'cev conditions
08B10 Congruence modularity, congruence distributivity
08B15 Lattices of varieties
08B20 Free algebras
08B25 Products, amalgamated products
08B30 Injectives, projectives
08B99 None of the above, but in this section

08Cxx Classes of algebras
08C05 Categories of algebras [See also 18C05.]
08C10 Axiomatic model classes [See also 03Cxx, in particular 03C60.]
08C15 Quasivarieties
08C99 None of the above, but in this section

10–XX NUMBER THEORY {Excluding 10Axx and 10Mxx, this classification does not distinguish work in the rational number fields from that in other algebraic number fields.}

10–01 Elementary exposition, textbooks
10–02 Advanced exposition (research surveys, monographs, etc.)
10–03 Historical (must also be assigned at least one classification number from Section 01)
10–04 Explicit machine computation and programs (not the theory of computation or programming)
10–06 Proceedings, conferences, etc.

10Axx Elementary number theory {For analogues in number fields, see 12A05.}
10A05 Multiplicative structure of the integers (GCD, etc.)
10A10 Congruences, primitive roots
10A15 Power residues, reciprocity
10A20 Number-theoretic functions, related numbers; inversion formulas
10A21 Counting functions
10A22 Abstract theory of number-theoretic functions
10A25 Elementary prime number theory, factorization

10A30 Algorithms and expansions; digital properties {For metric results, see 10K10.}
10A32 Continued fractions {For approximation results, see 10F20; see also 30B70, 40A15.}
10A35 Recurrence sequences
10A40 Special numbers, sequences and polynomials (e.g. Bernoulli)
10A45 Partitions
10A50 Combinatorial number theory
10A99 None of the above, but in this section

10Bxx Diophantine equations [See also 14Gxx.]
10B05 Linear, quadratic and bilinear equations
10B10 Cubic and quartic equations
10B15 Higher degree equations
10B16 Norm form equations
10B20 Multiplicative equations
10B25 Nonpolynomial equations
10B30 Equations in sufficiently many variables [See also 10J10.]
10B35 Representation problems [See also 10J10.]
10B40 *p*-adic and power series fields
10B45 Diophantine inequalities
10B99 None of the above, but in this section

10Cxx Forms (especially quadratic) {For quadratic forms in linear algebra, see 15A63.}
10C01 Forms over general fields (especially quadratic)
10C02 Forms over global rings and fields (especially quadratic)
10C03 Forms over local rings and fields (especially quadratic)
10C04 Forms over real fields
10C05 Quadratic, bilinear and Hermitian forms [See also 10E25.], general theory (including Witt rings of quadratic forms)
10C07 Class numbers of quadratic and Hermitian forms
10C10 Higher degree forms
10C15 Analytic theory (Epstein's zeta function; relations with automorphic forms and functions)
10C20 *p*-adic theory
10C25 Minima of forms [See also 10E20.]
10C30 Arithmetic properties of classical groups [See also 20Gxx.]
10C99 None of the above, but in this section

10Dxx Theory of automorphic and modular functions and forms [See also 12A67, 12B27, 14Gxx, 14Kxx, 22E50, 22E55, 30F35, 32Nxx; for relations with quadratic forms, see 10C15.]
10D05 Modular and automorphic functions
10D07 Structure of modular groups and generalizations, arithmetic groups [See also 20H05, 20H10, 22E40.]
10D12 Modular forms, one variable
10D15 Automorphic forms, one variable
10D20 Modular and automorphic forms, several variables
10D21 Hilbert modular forms and surfaces [See also 14J20.]
10D23 Congruence properties
10D24 Relations with Dirichlet series
10D25 Complex multiplication [See also 14K22.]
10D30 *p*-adic theory, local fields [See also 14G20, 22E50.]
10D35 Galois properties
10D40 Representation-theoretic methods, trace formulas
10D45 Uniformization, periods and cohomology
10D99 None of the above, but in this section

10Exx Geometry of numbers
10E05 Lattices and convex bodies [See also 10J25.]
10E10 Nonconvex bodies
10E15 Products of linear forms
10E20 Minima of forms [See also 10C25.]
10E25 Quadratic forms (reduction, extreme forms, etc.) [See also 10C05.]
10E30 Lattice packing and covering [See also 05B40, 52A45.]
10E35 Mean value theorems
10E40 Transfer theorems
10E45 Automorphism groups of lattices [See also 10C30.]
10E99 None of the above, but in this section

10Fxx Diophantine approximation [See also 10K15.]
10F05 Approximation to one number
10F10 Simultaneous approximation
10F15 Nonhomogeneous approximation
10F20 Continued fractions and generalizations [See also 10A32, 10K10.]
10F25 Approximation to algebraic numbers
10F30 Approximation by numbers from a fixed field
10F35 Irrationality and transcendence
10F37 Independence results
10F40 Distribution modulo one [See also 10K05.]
10F45 Approximation in non-Archimedean valuations
10F99 None of the above, but in this section

10Gxx Trigonometric sums, exponential sums and character sums
10G05 Exponential sums
10G10 Estimates on exponential sums
10G15 Character sums
10G20 Estimates on character sums
10G99 None of the above, but in this section

10Hxx Multiplicative theory
10H05 Riemann's zeta function, functional equation
10H08 Dirichlet *L*-function, functional equation
10H10 Other zeta functions {For local and global ground fields, see 12A70, 12A80, 12B30, 12B35; for algebro-geometric methods, see 14G10; see also 10C15, 10D40.}
10H15 Distribution of primes and of integers with specified multiplicative properties
10H20 Distribution in progressions and other sequences [See also 10L20.]
10H22 Turán theory
10H25 Asymptotic results on arithmetic functions
10H26 Asymptotic results on counting functions for algebraic and topological structures
10H30 Sieves, upper and lower estimates
10H32 Applications of sieve methods
10H35 Distribution of residue classes (primitive roots, power residues, etc.)
10H40 Generalized primes and integers
10H45 Almost-periodic number-theoretic functions [See also 10K35.]
10H99 None of the above, but in this section

10Jxx Additive theory
10J05 Sums of squares
10J06 Sums of higher powers
10J10 Applications of Hardy-Littlewood method [See also 10B35.]
10J15 Additive questions involving primes
10J20 Analytic work on partitions [See also 10A45.]
10J25 Lattice points in large regions
10J99 None of the above, but in this section

10Kxx Probabilistic theory; measure, dimension, etc.
10K05 Distribution modulo one [See also 10F40.]
10K10 Algorithms and expansions [See also 10A30, 10F20.]
10K15 Diophantine approximation [See also 10Fxx.]
10K20 Arithmetic functions
10K25 Normal numbers
10K30 Irregularities of distribution
10K35 Harmonic analysis and almost periodicity [See also 10H45.]
10K40 Non-Archimedean theory
10K50 Measure; Hausdorff dimension
10K99 None of the above, but in this section

10Lxx Sequences of integers
10L02 Density of sum sets, analogues and generalizations
10L05 Addition of sequences, additive bases [See also 05B10.]
10L10 Special sequences (density, multiplicative, additive and other properties)
10L15 Representation functions
10L20 Arithmetic progressions [See also 10H20.]
10L99 None of the above, but in this section

10Mxx Rational arithmetic of algebraic objects
10M05 Polynomials [See also 13F20.]
10M10 Valued fields [See also 12J10.]
10M15 Ordered fields [See also 12J15.]
10M20 Matrices [See also 15A36.]
10M99 None of the above, but in this section

10Nxx Connections with logic
10N05 Decidability [See also 03B25.]
10N10 Ultraproducts [See also 03C20.]
10N15 Nonstandard arithmetic [See also 03H15.]
10N99 None of the above, but in this section

12–XX ALGEBRAIC NUMBER THEORY, FIELD THEORY AND POLYNOMIALS

12–01 Elementary exposition, textbooks
12–02 Advanced exposition (research surveys, monographs, etc.)
12–03 Historical (must also be assigned at least one ciassification number from Section 01)
12–04 Explicit machine computation and programs (not the theory of computation or programming)
12–06 Proceedings, conferences, etc.

12Axx Algebraic number theory: global fields {For complex multiplication, see 10D25.}
12A05 Analogues in number fields of elementary number theory
12A10 Characterizations of algebraic numbers and algebraic functions
12A15 Special algebraic numbers (PV numbers, etc.)
12A20 Polynomials (irreducibility, etc.)
12A25 Quadratic fields
12A30 Cubic and quartic fields
12A35 Abelian and metabelian extensions (including cyclotomic, Kummer, cyclic)
12A40 Other number fields
12A45 Units and factorization
12A50 Class number, discriminant
12A55 Galois theory
12A57 Integral representations related to algebraic numbers [See also 20C10.]
12A60 Galois cohomology [See also 12Gxx, 16A16.]
12A62 Applications of algebraic *K*-theory
12A65 Class field theory
12A67 Langlands-Weil conjectures, nonabelian class field theory [See also 10Dxx, 22E55.]
12A70 Zeta functions of number fields and generalizations [See also 10H08, 10H10.]
12A75 Density theorems
12A80 Arithmetic of algebras [See also 12B35, 16A18, 16A39.]
12A82 Zeta functions of algebras
12A85 Analysis in adèle rings and groups
12A90 Arithmetic theory of algebraic function fields [See also 14–XX.]
12A95 Totally real and totally positive fields
12A99 None of the above, but in this section

12Bxx Algebraic number theory: local and *p*-adic fields
12B05 Polynomials
12B10 Ramification and extension theory
12B15 Galois theory
12B17 Integral representations
12B20 Galois cohomology [See also 12Gxx, 16A16.]
12B22 Applications of algebraic *K*-theory
12B25 Class field theory
12B27 Langlands-Weil conjectures, nonabelian class field theory [See also 10Dxx, 22E50.]
12B30 Zeta and *L*-functions [See also 10H08, 10H10.]
12B35 Arithmetic of algebras [See also 12A80, 16A18, 16A39.]
12B37 Zeta functions of algebras
12B40 Other analytic theory
12B45 Other nonanalytic theory
12B99 None of the above, but in this section

12Cxx Finite fields, and finite commutative rings (number-theoretic aspects)
12C05 Polynomials
12C10 Linear sequences
12C15 Arithmetic
12C20 Cyclotomy
12C25 Exponential sums
12C30 Structure theory
12C99 None of the above, but in this section

12Dxx Real and complex fields
12D05 Polynomials: factorization
12D10 Polynomials: location of zeros (algebraic theorems) {For the analytic theory, see 26C10, 30C15.}
12D15 Formally real fields
12D99 None of the above, but in this section

12Exx General field theory
12E05 Polynomials (irreducibility, etc.)
12E10 Special polynomials
12E12 Equations
12E15 Skew fields, division rings [See also 12A80, 12B35, 16A39.]
12E99 None of the above, but in this section

12Fxx Field extensions
12F05 Algebraic extensions
12F10 Separable extensions, Galois theory
12F15 Inseparable extensions, derivations
12F20 Transcendental extensions
12F99 None of the above, but in this section

12Gxx Homological methods
12G05 Galois cohomology [See also 12A60, 12B20, 13A20, 16A16.]
12G10 Cohomological dimension
12G99 None of the above, but in this section

12Hxx Differential and difference algebra
12H05 Differential algebra [See also 13N05.]
12H10 Difference algebra [See also 39Axx.]
12H20 Abstract differential equations [See also 34Gxx.]
12H25 *p*-adic differential equations [See also 12B40, 14G20, 34Gxx.]
12H99 None of the above, but in this section

12Jxx Topological fields
12J05 Normed fields
12J10 Valued fields [See also 10M10.]
12J15 Ordered fields [See also 10M15.]
12J17 Topological semi-fields
12J20 General valuation theory
12J25 Non-Archimedean valued fields [See also 26E30, 30G05, 32D25, 46P05.]
12J27 Krasner-Tate algebras [See mainly 32E27, also 46P05.]
12J99 None of the above, but in this section

12Kxx Generalizations
12K05 Near-fields [See also 16A76.]
12K10 Semi-fields [See also 16A78.]
12K99 None of the above, but in this section

12Lxx Connections with logic
12L05 Decidability
12L10 Ultraproducts
12L15 Nonstandard arithmetic [See also 03H15.]
12L99 None of the above, but in this section

13–XX COMMUTATIVE RINGS AND ALGEBRAS {For the noncommutative case, see 16–XX.}

13–01 Elementary exposition, textbooks
13–02 Advanced exposition (research surveys, monographs, etc.)
13–03 Historical (must also be assigned at least one classification number from Section 01)
13–04 Explicit machine computation and programs (not the theory of computation or programming)
13–06 Proceedings, conferences, etc.

13Axx General commutative ring theory
13A05 Divisibility
13A10 Radical theory
13A15 Ideals
13A17 Prime and primary ideals and their generalizations
13A18 Valuations and their generalizations
13A20 Brauer groups [See also 12Gxx, 16A16.]
13A99 None of the above, but in this section

13Bxx Ring extensions and related topics
13B02 Extension theory
13B05 Galois theory
13B10 Automorphisms and derivations
13B15 Ramification theory
13B20 Integral dependence; integral closure; integrally closed

rings, related rings (Japanese, etc.)
13B25 Polynomials over commutative rings
13B30 Quotients and localization
13B99 None of the above, but in this section

13Cxx Theory of modules and ideals
13C05 Structure, classification theorems
13C10 Projective and free modules and ideals [See also 18G05.]
13C11 Injective and flat modules and ideals [See also 18G05.]
13C12 Torsion modules and ideals
13C13 Other special types
13C15 Dimension theory, depth, related rings (catenary, etc.)
13C99 None of the above, but in this section

13Dxx Homological methods
13D03 Cohomology of commutative rings and algebras
13D05 Homological dimension
13D10 Deformations and infinitesimal methods [See also 14D15, 16A58, 32Gxx.]
13D15 Grothendieck group, K-theory [See also 14F15, 18F25, 18F30.]
13D25 Complexes [See also 14Mxx.]
13D30 Torsion theory [See also 13C12, 16A63, 18E40.]
13D99 None of the above, but in this section

13Exx Chain conditions, finiteness conditions
13E05 Noetherian rings and modules
13E10 Artinian rings and modules, finite-dimensional algebras
13E15 Rings and modules of finite generation or representation
13E99 None of the above, but in this section

13Fxx Arithmetic rings [See also 12–XX.]
13F05 Dedekind and Prüfer rings and their generalizations
13F07 Euclidean rings and generalizations
13F10 Principal ideal rings
13F15 Factorial rings, unique factorization domains
13F20 Polynomial rings [See also 10M05.]
13F25 Formal power series rings
13F30 Discrete valuation rings
13F99 None of the above, but in this section

13G05 Integral domains

13Hxx Local rings and semilocal rings
13H05 Regular local rings
13H10 Special types (Macaulay, Gorenstein, etc.)
13H15 Multiplicity theory and related topics
13H99 None of the above, but in this section

13Jxx Topological rings [See also 16A80.]
13J05 Power series rings
13J10 Complete rings
13J15 Henselian rings
13J20 Global topological rings
13J25 Ordered rings [See also 06F25, 16A86.]
13J99 None of the above, but in this section

13K05 Witt vectors and related rings

13L05 Applications of logic to commutative algebra [See also 03Cxx, 03Hxx.]

13Mxx Finite commutative rings {For number-theoretic aspects, see 12Cxx.}
13M05 Structure
13M10 Polynomials
13M99 None of the above, but in this section

13N05 Differential algebra [See also 12H05.]

14–XX ALGEBRAIC GEOMETRY

14–01 Elementary exposition, textbooks
14–02 Advanced exposition (research surveys, monographs, etc.)
14–03 Historical (must also be assigned at least one classification number from Section 01)
14–04 Explicit machine computation and programs (not the theory of computation or programming)
14–06 Proceedings, conferences, etc.

14Axxx Foundations
14A05 Relevant commutative algebra [See also 13–XX.]
14A10 Varieties
14A15 Schemes
14A20 Generalizations (algebraic spaces, motifs)
14A25 Elementary questions
14A99 None of the above, but in this section

14Bxx Local theory [See also 32Bxx.]
14B05 Singularities [See also 14E15, 32B30, 32C40, 58C27.]
14B07 Deformations of singularities [See also 14D15, 32C40, 32G05, 32G11, 32G13.]
14B10 Infinitesimal methods
14B12 Local deformation theory, Artin approximation, etc.
14B15 Local cohomology [See also 32C36.]
14B20 Formal neighborhoods
14B25 Local structure of maps: étale, flat, etc. [See also 13–XX, 14E40.]
14B99 None of the above, but in this section

14Cxx Cycles and subschemes
14C05 Parametrization (Chow and Hilbert schemes)
14C10 Equivalence relations
14C15 Rational equivalence rings
14C17 Intersection theory
14C20 Divisors, linear systems
14C21 Webs, nets [See also 53A60.]
14C22 Picard groups
14C25 Zero-cycles
14C30 Transcendental methods, Hodge theory [See also 32J25.]
14C35 Applications of methods of algebraic K-theory [See also 14F05, 18F25.]
14C40 Riemann-Roch theorems [See also 14F12.]
14C99 None of the above, but in this section

14Dxx Families, fibrations
14D05 Structure of families (Picard-Lefschetz, Picard-Fuchs theory, etc.)
14D10 Arithmetic ground fields (finite, local, global)
14D15 Formal methods; deformations [See also 13D10, 14B07, 16A58, 32Gxx.]
14D20 Algebraic moduli problems {For analytic moduli problems, see 32G13.}
14D22 Fine structure of moduli spaces
14D25 Geometric invariants [See also 14L30.]
14D99 None of the above, but in this section

14Exx Mappings and correspondences
14E05 Rational maps, birational correspondences
14E07 Structure of Cremona group and generalizations
14E10 General correspondences
14E15 Global theory of singularities, resolution [See also 14B05, 32C45.]
14E20 Coverings, fundamental group
14E22 Ramification problems [See also 12B10.]
14E25 Imbeddings
14E30 Minimal models
14E35 Results in dimension $\leqslant 3$
14E40 Local structure of maps: étale, flat, etc. [See also 13–XX, 14B25.]
14E99 None of the above, but in this section

14Fxx Cohomology theory [See also 13Dxx.]
14F05 Vector bundles, sheaves, related constructions [See also 18F20, 46M20.]
14F07 Weierstrass points in one and several variables; gap sheaves
14F10 Differentials and other special sheaves
14F12 Riemann-Roch problems [See mainly 14C40, also 32L10, 57R20.]
14F15 Serre cohomology, K-theory [See also 13D15, 18F25.]
14F20 Grothendieck cohomology and topology [See also 18F10.]
14F25 Classical real and complex cohomology
14F30 p-adic cohomology, crystalline cohomology
14F35 Homotopy theory
14F40 de Rham cohomology [See also 14C30, 32C35, 32L10.]
14F45 Topological properties
14F99 None of the above, but in this section

14Gxx Special ground fields, arithmetic problems {For complex multiplication, see 10D25, 14K22. For automorphic and modular functions and forms, see also 10Dxx, 14K15.}
14G05 Rationality questions

14G10 Zeta functions and related questions [See also 12A70, 12B30.]
14G13 Weil-Tate conjectures [See also 14Cxx.]
14G15 Finite ground fields
14G20 p-adic ground fields (local fields)
14G25 Global ground fields
14G30 Real ground fields [See also 32C05. Must also be assigned at least one other number referring to the specific type of problem considered.]
14G99 None of the above, but in this section

14Hxx Curves
14H05 Algebraic functions [See also 14K20, 32G20.]
14H10 Families, moduli (algebraic)
14H15 Families, moduli (analytic) [See also 30F10, 32G15, 32G20.]
14H20 Singularities, local rings [See also 13Hxx.]
14H25 Arithmetic ground fields [See also 10Bxx, 14Gxx.]
14H30 Coverings, fundamental group
14H35 Correspondences [See also 14Exx.]
14H40 Jacobians [See also 32G20.]
14H45 Special curves
14H99 None of the above, but in this section

14Jxx Surfaces and higher-dimensional varieties
14J05 Picard group
14J10 Families, moduli, classification: algebraic theory
14J15 Moduli, classification: analytic theory [See also 32J15.]
14J17 Singularities of surfaces
14J20 Arithmetic ground fields [See also 10Bxx, 14Gxx.]
14J25 Special surfaces
14J30 Special 3-folds [See also 14E05.]
14J35 Special 4-folds [See also 14E05.]
14J40 Special n-folds
14J99 None of the above, but in this section

14Kxx Abelian varieties and schemes
14K05 Algebraic theory
14K07 Elliptic curves, one-dimensional theory
14K10 Algebraic moduli, classification
14K15 Arithmetic ground fields [See also 10Bxx, 10Dxx, 14Gxx.]
14K20 Analytic theory; abelian integrals and differentials
14K22 Complex multiplication [See also 10D25.]
14K25 Theta functions
14K30 Picard schemes, higher Jacobians
14K99 None of the above, but in this section

14Lxx Group schemes {For linear algebraic groups, see 20Gxx. For Lie algebras, see 17B45.}
14L05 Formal groups, p-divisible groups [See also 17B50.]
14L10 Group varieties
14L15 Group schemes
14L17 Affine algebraic groups, hyperalgebra constructions [See also 17B45, 18D35.]
14L20 Finite group schemes
14L25 Pro-algebraic group schemes
14L30 Group actions on varieties or schemes [See also 14D25.]
14L35 Classical groups (geometric aspects)
14L40 Other algebraic groups (geometric aspects)
14L99 None of the above, but in this section

14Mxx Special varieties
14M05 Varieties defined by ring conditions (factorial, Macaulay)
14M07 Low-codimension problems [See also 14Cxx.]
14M10 Complete intersections
14M12 Determinantal varieties
14M15 Grassmannians, Schubert varieties [See also 51M35.]
14M17 Homogeneous spaces [See also 32M10, 53C30, 57T15.]
14M20 Rational varieties
14M99 None of the above, but in this section

14Nxx Classical methods and problems [See also 51–XX.]
14N05 Projective techniques
14N10 Enumerative problems
14N99 None of the above, but in this section

15–XX LINEAR AND MULTILINEAR ALGEBRA; MATRIX THEORY (finite and infinite)

15–01 Elementary exposition, textbooks
15–02 Advanced exposition (research surveys, monographs, etc.)
15–03 Historical (must also be assigned at least one classification number from Section 01)
15–04 Explicit machine computation and programs (not the theory of computation or programming)
15–06 Proceedings, conferences, etc.
15A03 Vector spaces, linear dependence, rank
15A04 Linear transformations, semilinear transformations
15A06 Linear equations
15A09 Matrix inversion, generalized inverses
15A12 Conditioning of matrices [See also 65F35.]
15A15 Determinants, permanents, other special matrix functions
15A18 Eigenvalues, singular values, and eigenvectors
15A21 Canonical forms, reductions, classification
15A23 Factorization of matrices
15A24 Matrix equations and identities
15A27 Commutativity
15A30 Algebraic systems of matrices [See also 16A42, 20Gxx, 20Hxx.]
15A33 Matrices over special rings (quaternions, finite fields, etc.)
15A36 Matrices of integers [See also 10M20.]
15A39 Linear inequalities
15A42 Inequalities involving eigenvalues and eigenvectors
15A45 Miscellaneous inequalities involving matrices
15A48 Positive matrices and their generalizations
15A51 Stochastic matrices
15A52 Random matrices
15A54 Matrices over function rings in one or more variables
15A57 Other types of matrices (Hermitian, skew-Hermitian, etc.)
15A60 Norms of matrices, numerical range, applications of functional analysis to matrix theory [See also 65F35, 65J05.]
15A63 Quadratic and bilinear forms, inner products [See mainly 10Cxx.]
15A66 Clifford algebras
15A69 Multilinear algebra, tensor products
15A72 Vector and tensor algebra, theory of invariants
15A75 Exterior algebra, Grassmann algebras
15A78 Other algebras built from modules
15A90 Applications to physics
15A99 Miscellaneous topics

16–XX ASSOCIATIVE RINGS AND ALGEBRAS {For the commutative case, see 13–XX.}

16–01 Elementary exposition, textbooks
16–02 Advanced exposition (research surveys, monographs, etc.)
16–03 Historical (must also be assigned at least one classification number from Section 01)
16–04 Explicit machine computation and programs (not the theory of computation or programming)
16–06 Proceedings, conferences, etc.
16A02 Integral domains, unique factorization domains (noncommutative)
16A03 Graded algebras, rings and modules
16A04 Noncommutative principal ideal rings, rings with a division algorithm
16A05 Skew polynomial rings, power series rings
16A06 Free algebras, free ideal rings (firs) and their generalizations [See also tensor algebra in 15A72.]
16A08 Rings of quotients, noncommutative localization
16A10 Noncommutative local rings
16A12 Prime and semiprime rings
16A14 Noncommutative analogues of Dedekind and Prüfer domains
16A15 Other generalizations of commutative rings {For commutativity theorems, see 16A70.}
16A16 Separable algebras, Azumaya algebras and their generalizations [See also 12Gxx, 13A20.]
16A18 Orders, arithmetic in algebras [See also 12A80, 12B35.]
16A19 Simple non-Artinian rings
16A20 Primitive and semiprimitive rings
16A21 Radical theory
16A22 Nil, nilpotent and radical rings
16A24 Hopf algebras, algebraic theory [See also 57T05.]
16A25 Structure of groups of units of rings
16A26 Group rings of finite groups [See also 20C05; for semigroup

rings, see 20M25.]
16A27 Group rings of infinite groups [See also 20C07; for semigroup rings, see 20M25.]
16A28 Rings with involution [See also 46Kxx.]
16A30 von Neumann regular rings and their generalizations [See also 06Cxx, 06Exx.]
16A32 Idempotents in rings [See also 06Exx.]
16A33 Noetherian rings
16A34 Rings with annihilator conditions, chain conditions (Goldie rings)
16A35 Artinian rings
16A36 Frobenius algebras, quasi-Frobenius rings and their generalizations
16A38 Rings with polynomial identity
16A39 Skew fields [See also 12E15.], division rings
16A40 Simple and semisimple Artinian rings
16A42 Rings of linear transformations, matrix rings, infinite matrix rings [See also 15A30.]
16A44 Finite rings [See also 12Cxx, 13Mxx.]
16A45 Other types of rings and algebras
16A46 Finite-dimensional algebras
16A48 Structure, classification
16A49 Duality theory
16A50 Projective and flat modules and generalizations
16A51 Perfect, semiperfect rings and modules and their generalizations
16A52 Injective modules, self-injective rings and generalizations
16A53 Special types of modules
16A54 Grothendieck groups of rings, *K*-theory of noncommutative rings [See also 18F25, 18F30.]
16A55 Dimension theory (Krull, Gabriel)
16A56 Extension theory
16A58 Deformation theory of rings and algebras [See also 13D10, 14D15, 32Gxx.]
16A60 Homological dimension
16A61 Cohomology of algebras and rings
16A62 Homological methods
16A63 Torsion theories [See also 13D30, 18E40.]
16A64 Modules and representations
16A65 Endomorphism rings
16A66 Ideal theory, prime ideals and their generalizations
16A68 Lie, Jordan and other nonassociative structures on associative rings
16A70 Commutativity theorems
16A72 Automorphisms, derivations, other morphisms
16A74 Galois theory
16A76 Near-rings [See also 12K05.]
16A78 Semirings and other generalizations of rings
16A80 Topological rings and modules [See also 13Jxx.]
16A86 Ordered rings [See also 06F25.]
16A89 Equivalence of module categories
16A90 Categorical methods and categorical ring theory
16A99 Miscellaneous topics

17–XX NONASSOCIATIVE RINGS AND ALGEBRAS

17–01 Elementary exposition, textbooks
17–02 Advanced exposition (research surveys, monographs, etc.)
17–03 Historical (must also be assigned at least one classification number from Section 01)
17–04 Explicit machine computation and programs (not the theory of computation or programming)
17–06 Proceedings, conferences, etc.

17Axx General nonassociative rings
17A01 General theory
17A05 Power-associative
17A10 Commutative power-associative
17A15 Noncommutative Jordan algebras
17A20 Flexible algebras
17A25 Nodal algebras
17A30 Algebras satisfying other identities
17A35 Division algebras
17A36 Automorphisms, derivations, other operators
17A40 Ternary compositions
17A42 Other *n*-ary compositions
17A45 Quadratic algebras (not quadratic Jordan algebras)
17A50 Free algebras
17A60 Structure theory in general nonassociative rings
17A65 Radical theory in general nonassociative rings
17A70 Superalgebras
17A75 Composition algebras
17A99 None of the above, but in this section

17Bxx Lie algebras {For Lie groups, see 22Exx.}
17B05 Structure theory
17B10 Representations, algebraic theory (weights)
17B15 Representations, analytic theory
17B20 Simple, semisimple, reductive algebras (roots)
17B25 Exceptional algebras
17B30 Solvable, nilpotent algebras
17B35 Universal enveloping algebras, imbeddings
17B40 Automorphisms, derivations, other operators
17B45 Lie algebras of linear algebraic groups [See also 14Lxx and 20Gxx.]
17B50 Modular Lie algebras
17B55 Homological methods in Lie algebras
17B56 Cohomology of Lie algebras
17B60 Lie rings associated with other structures (associative, Jordan, etc.) [See also 15A30, 16A68, 17C40, 17C50.]
17B65 Infinite-dimensional Lie algebras [See also 22E65.]
17B70 Graded Lie algebras
17B99 None of the above, but in this section

17Cxx Jordan algebras (commutative)
17C05 Identities
17C10 Structure theory
17C15 Representations
17C20 Simple, semisimple algebras
17C25 Universal enveloping algebras
17C30 Automorphisms, derivations, other operators
17C35 Formally real domains of positivity [See also 32Nxx.]
17C40 Exceptional Jordan algebras and associated Lie groups
17C45 Homological methods in Jordan algebras
17C46 Cohomology of Jordan algebras
17C50 Jordan rings associated with other structures [See also 16A68, 17B60.]
17C65 Infinite-dimensional Jordan algebras
17C99 None of the above, but in this section

17Dxx Other nonassociative rings and algebras
17D05 Alternative rings
17D10 Mal'cev rings
17D15 Right alternative rings
17D20 (γ, δ)-rings
17D25 Lie admissible algebras
17D92 Genetic algebras
17D99 None of the above, but in this section

18–XX CATEGORY THEORY, HOMOLOGICAL ALGEBRA

18–01 Elementary exposition, textbooks
18–02 Advanced exposition (research surveys, monographs, etc.)
18–03 Historical (must also be assigned at least one classification number from Section 01)
18–04 Explicit machine computation and programs (not the theory of computation or programming)
18–06 Proceedings, conferences, etc.

18Axx General theory of categories and functors
18A05 Definitions, generalizations
18A10 Graphs, diagram schemes, precategories, neocategories [See also 20Lxx.]
18A15 Foundations, relations to logic and deductive systems [See also 03–XX.]
18A20 Epimorphisms, monomorphisms, special classes of morphisms, null morphisms, factorization (bicategories)
18A22 Special properties of functors (faithful, full, etc.)
18A23 Natural morphisms, dinatural morphisms
18A25 Functor categories, comma categories
18A30 Limits and colimits (products, sums, directed limits, pushouts, fiber products, equalizers, kernels, ends and coends, etc.)
18A32 Factorization of morphisms (via images, coimages,

dominions, codominions), substructures, quotient structures, congruences, amalgams
18A35 Categories admitting limits (complete categories), functors commuting with limits, continuous functors, completions
18A40 Adjoint functors (representable functors, universal constructions, reflective subcategories, reflections, etc.), constructions of adjoints (Kan extensions, etc.)
18A99 None of the above, but in this section

18Bxx Special categories
18B05 Category of sets, characterizations [See also 03–XX.]
18B10 Category of relations, additive relations
18B15 Imbedding theorems, universal categories [See also 18E20.]
18B20 Categories of machines, automata, operative categories [See also 03D05, 68Dxx, 68F10.]
18B25 Topoi [See also 03G25.]
18B30 Categories of topological spaces and continuous mappings [See also 54–XX.]
18B35 Preorders, orders and lattices (viewed as categories) [See also 06–XX.]
18B40 Groupoids, semigroupoids, semigroups, groups (viewed as categories) [See also 20Axx, 20Lxx, 20Mxx.]
18B99 None of the above, but in this section

18Cxx Categories and algebraic theories
18C05 Equational categories [See also 03–XX, 08C05.]
18C10 Theories (e.g. algebraic theories), structure, and semantics [See also 03–XX.]
18C15 Triples (= standard construction, monad or triad), algebras for a triple, homology and derived functors for triples [See also 18Gxx.]
18C20 Algebras and Kleisli categories associated with monads
18C99 None of the above, but in this section

18Dxx Categories with structure
18D05 Double categories, 2-categories, bicategories, hypercategories
18D10 Monoidal categories (= multiplicative categories)
18D15 Closed categories (closed monoidal and Cartesian closed categories, etc.)
18D20 Enriched categories (over closed or monoidal categories)
18D25 Strong functors, strong adjunctions
18D30 Fibered categories
18D35 Structured objects in a category (group objects, etc.)
18D99 None of the above, but in this section

18Exx Abelian categories
18E05 Preadditive, additive categories
18E10 Exact categories, abelian categories
18E15 Grothendieck categories
18E20 Imbedding theorems [See also 18B15.]
18E25 Derived functors and satellites
18E30 Derived categories, triangulated categories
18E35 Localization of categories
18E40 Torsion theories, radicals [See also 13D30, 16A63.]
18E99 None of the above, but in this section

18Fxx Categories and geometry
18F05 Local categories and functors
18F10 Grothendieck topologies [See also 14F20.]
18F15 Abstract manifolds and fiber bundles [See also 55Rxx, 57Pxx.]
18F20 Presheaves and sheaves [See also 14F05, 32C35, 32L10, 54B40, 55N30.]
18F25 Algebraic K-theory and L-theory [See also 10Cxx, 12–XX, 13D15, 14Cxx, 16A54, 57R65, 57R67.]
18F30 Grothendieck groups [See also 13D15, 16A54.]
18F99 None of the above, but in this section

18Gxx Homological algebra [See also 55Uxx.]
18G05 Projectives and injectives [See also 13C10, 13C11, 16A50, 16A52.]
18G10 Resolutions; derived functors [See also 18E25.]
18G15 Ext and Tor, generalizations, Künneth formula [See also 55U25.]
18G20 Homological dimension [See also 13Dxx, 16A60, 16A62.]
18G25 Relative homological algebra, projective classes
18G30 Simplicial sets, simplicial objects (in a category) [See also 55U10.]
18G35 Chain complexes [See also 18E30, 55U15.]
18G40 Spectral sequences, hypercohomology [See also 55Txx.]
18G50 Nonabelian homological algebra
18G55 Nonabelian homotopical algebra
18G99 None of the above, but in this section

20–XX GROUP THEORY AND GENERALIZATIONS

20–01 Elementary exposition, textbooks
20–02 Advanced exposition (research surveys, monographs, etc.)
20–03 Historical (must also be assigned at least one classification number from Section 01)
20–04 Explicit machine computation and programs (not the theory of computation or programming)
20–06 Proceedings, conferences, etc.

20Axx Foundations
20A05 Axiomatics and elementary properties
20A10 Metamathematical considerations {For word problems, see 20F10.}
20A15 Applications of logic to group theory
20A99 None of the above, but in this section

20Bxx Permutation groups
20B05 General theory for finite groups
20B07 General theory for infinite groups
20B10 Characterization theorems
20B15 Uniprimitive groups
20B20 Multiply transitive finite groups
20B22 Multiply transitive infinite groups
20B25 Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx, 12F10, 20G40, 20H30, 51–XX.]
20B27 Infinite automorphism groups [See also 12F10.]
20B30 Symmetric groups, general
20B35 Subgroups of symmetric groups
20B99 None of the above, but in this section

20Cxx Representation theory of groups
20C05 Group rings of finite groups and their modules [See also 16A26.]
20C07 Group rings of infinite groups and their modules [See also 16A27.]
20C10 Integral representations of finite groups
20C11 p-adic representations of finite groups
20C12 Integral representations of infinite groups
20C15 Ordinary representations and characters
20C20 Modular representations and characters
20C25 Projective representations and multipliers
20C30 Representations of finite symmetric groups and other special finite groups
20C32 Representations of infinite symmetric groups and other special infinite groups
20C35 Applications to physics
20C99 None of the above, but in this section

20Dxx Abstract finite groups
20D05 Classification of simple and nonsolvable groups
20D06 Simple groups: alternating and classical groups [See also 20Gxx, 22Exx.]
20D08 Simple groups: sporadic groups
20D10 Solvable groups, theory of formations, π-length, ranks, factorable groups, p-groups [See also 20F17.]
20D15 Nilpotent groups, p-groups
20D20 Sylow subgroups, Sylow properties, π-groups, π-structure
20D25 Special subgroups (Frattini, Fitting, etc.)
20D30 Series and lattices of subgroups
20D35 Subnormal subgroups
20D40 Products of subgroups
20D45 Automorphisms
20D50 Covering of subgroups
20D60 Arithmetic and combinatorial problems
20D99 None of the above, but in this section

20Exx Structure and classification of infinite or finite groups
20E05 Free nonabelian groups
20E06 Free products, free products with amalgamation, Higman-Neumann-Neumann extensions, and generalizations

20E07 Subgroup theorems
20E10 Varieties of groups
20E15 Chains and lattices of subgroups, subnormal subgroups [See also 20F22.]
20E18 Limits, profinite groups
20E22 Extensions, wreath products, and other compositions
20E25 Local properties
20E26 Residual properties and generalizations
20E28 Maximal subgroups, minimal subgroups
20E32 Simple groups [See also 20D05.]
20E34 General structure theorems
20E36 General theorems concerning automorphisms of groups
20E99 None of the above, but in this section

20Fxx Special aspects of infinite or finite groups
20F05 Generators, relations, and presentations
20F06 Cancellation theory
20F10 Word problems, other decision problems, connections with logic and automata [See also 03D05, 03D40, 06B25, 08A50, 68Dxx, 68F10.]
20F12 Commutator calculus
20F14 Derived series, central series, and generalizations
20F16 Solvable groups, supersolvable groups
20F17 Formations of groups [See also 20D10.]
20F18 Nilpotent groups
20F19 Generalizations of solvable and nilpotent groups
20F22 Other classes of groups defined by subgroup chains
20F24 FC-groups and their generalizations
20F26 Special subgroups
20F28 Automorphism groups of groups [See also 20E36.]
20F29 Representations of groups as automorphism groups of algebraic systems
20F32 Geometric group theory [See also 05C25, 20Exx, 20Gxx.]
20F34 Fundamental groups and their automorphisms [See also 57M05, 57Sxx.]
20F36 Braid groups
20F38 Other groups related to topology or analysis
20F40 Associated Lie structures
20F45 Engel conditions
20F50 Periodic groups
20F60 Ordered groups [See mainly 06F15.]
20F99 None of the above, but in this section

20Gxx Linear algebraic groups (classical groups) {For arithmetic theory, see 10C30, 10E45; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 22E45, 22E46, 22E47, 22E50, 22E55.}
20G05 Representation theory
20G10 Cohomology theory
20G15 Linear algebraic groups over arbitrary fields
20G20 Linear algebraic groups over the reals, the complexes, the quaternions
20G25 Linear algebraic groups over local fields and their integers
20G30 Linear algebraic groups over global fields and their integers
20G35 Linear algebraic groups over adèles and other rings and schemes
20G40 Linear algebraic groups over finite fields
20G45 Applications to physics; explicit representations
20G99 None of the above, but in this section

20Hxx Other groups of matrices
20H05 Unimodular groups, congruence subgroups [See also 10D07, 22E40, 51F20.]
20H10 Fuchsian groups and their generalizations [See also 10D07, 22E40, 30F35, 32Nxx.]
20H15 Other geometric groups, including crystallographic groups [See also 51–XX, especially 51F15, and 82A60.]
20H20 Other matrix groups over fields
20H25 Other matrix groups over rings
20H30 Other matrix groups over finite fields
20H99 None of the above, but in this section

20Jxx Connections with homological algebra and category theory
20J05 Homological methods in group theory
20J06 Cohomology of finite groups
20J10 Groups arising as cohomology groups
20J15 Category of groups
20J99 None of the above, but in this section

20Kxx Abelian groups
20K01 Finite abelian groups
20K05 Finitely generated groups
20K10 Torsion groups, primary groups and generalized primary groups
20K12 Ulm sequences
20K15 Torsion free groups, finite rank
20K20 Torsion free groups, infinite rank
20K21 Mixed groups
20K25 Direct sums, direct products, etc.
20K26 Indecomposable groups
20K27 Subgroups
20K30 Automorphisms, homomorphisms, endomorphisms, etc.
20K35 Extensions
20K40 Homological and categorical methods
20K45 Topological methods
20K99 None of the above, but in this section

20Lxx Groupoids (small categories in which all morphisms are isomorphisms)
20L05 General theory
20L10 Connections with group theory
20L13 Mappings of groupoids
20L15 Connections with topology
20L17 Connections with category theory
20L99 None of the above, but in this section

20Mxx Semigroups
20M05 Free semigroups, generators and relations, word problem
20M07 Varieties of semigroups
20M10 General structure theory
20M11 Radical theory
20M12 Ideal theory
20M14 Commutative semigroups
20M15 Mappings of semigroups
20M20 Semigroups of transformations, etc. [See also 47D05, 47H20, 54H15.]
20M25 Semigroup rings, multiplicative semigroups of rings
20M30 Representation of semigroups
20M35 Semigroups in automata theory, linguistics, etc. [See also 03D05, 68D30, 68Fxx.]
20M50 Connections with homological algebra and category theory
20M99 None of the above, but in this section

20Nxx Other generalizations of groups
20N05 Loops, quasigroups [See also 05Bxx.]
20N07 Mappings of loops
20N10 Ternary systems (heaps, semiheaps, heapoids, etc.)
20N15 *n*-ary systems
20N99 None of the above, but in this section

20P05 Probability methods in group theory

22–XX TOPOLOGICAL GROUPS, LIE GROUPS {For transformation groups, see 54H15, 57Sxx, 58–XX. For abstract harmonic analysis, see 43–XX.}

22–01 Elementary exposition, textbooks
22–02 Advanced exposition (research surveys, monographs, etc.)
22–03 Historical (must also be assigned at least one classification number from Section 01)
22–04 Explicit machine computation and programs (not the theory of computation or programming)
22–06 Proceedings, conferences, etc.

22Axx Topological algebraic systems {For topological rings and fields, see 12Jxx, 13Jxx, 16A80; for dual spaces of operator algebras and topological groups, see 47D35.}
22A05 Structure of general topological groups
22A10 Analysis on general topological groups
22A15 Structure of topological semigroups
22A20 Analysis on topological semigroups
22A25 Representations of general topological groups and semigroups

22A26 Topological semilattices, lattices and applications [See also 06B30, 06F30.]
22A30 Other topological algebraic systems and their representations
22A99 None of the above, but in this section

22Bxx Locally compact abelian (LCA) groups
22B05 General properties and structure of LCA groups
22B10 Structure of group algebras of LCA groups
22B99 None of the above, but in this section

22C05 Compact groups

22Dxx Locally compact groups and their algebras
22D05 General properties and structure of locally compact groups
22D10 Unitary representations of locally compact groups
22D12 Other representations of locally compact groups
22D15 Group algebras of locally compact groups
22D20 Representations of group algebras
22D25 C^*-algebras and W^*-algebras arising from group representations [See also 46Lxx.]
22D30 Induced representations
22D35 Duality theorems
22D40 Ergodic theory on groups [See also 28Dxx and 43A60.]
22D45 Automorphism groups of locally compact groups
22D99 None of the above, but in this section

22Exx Lie groups {For the topology of Lie groups and homogeneous spaces, see 57Sxx, 57Txx; for analysis thereon, see 43A80, 43A85, 43A90.}
22E05 Local Lie groups [See also 34–XX, 35–XX, 58H05.]
22E10 General properties and structure of complex Lie groups [See also 32M05.]
22E15 General properties and structure of real Lie groups
22E20 General properties and structure of other Lie groups
22E25 Nilpotent and solvable Lie groups
22E27 Representations of nilpotent and solvable Lie groups (special orbital integrals, non-Type I representations, etc.)
22E30 Analysis on real and complex Lie groups [See also 33A75, 43–XX.]
22E35 Analysis on p-adic Lie groups [See also 12A85.]
22E40 Discrete subgroups of Lie groups [See also 20Hxx and 32Nxx.]
22E41 Continuous cohomology [See also 57R32, 57Txx, 58H10.]
22E43 Structure and representation of the Lorentz group
22E45 Representations of Lie and linear algebraic groups over real fields: analytic methods {For the purely algebraic theory, see 20G05.}
22E46 Semi-simple Lie groups and their representations
22E47 Representations of Lie and real algebraic groups: algebraic methods (Verma modules, etc.) [See also 17B35.]
22E50 Representations of Lie and linear algebraic groups over local fields
22E55 Representations of Lie and linear algebraic groups over global fields and adèle rings [See also 20G05.]
22E60 Lie algebras of Lie groups {For the algebraic theory of Lie algebras, see 17Bxx.}
22E65 Infinite-dimensional Lie groups and their Lie algebras [See also 17B65, 58B25, 58H05.]
22E70 Applications of Lie groups to physics; explicit representations [See also 81C40, 81Gxx.]
22E99 None of the above, but in this section

26–XX REAL FUNCTIONS [See also 54C30.]

26–01 Elementary exposition, textbooks
26–02 Advanced exposition (research surveys, monographs, etc.)
26–03 Historical (must also be assigned at least one classification number from Section 01)
26–04 Explicit machine computation and programs (not the theory of computation or programming)
26–06 Proceedings, conferences, etc.

26Axx Functions of one variable
26A03 Foundations: limits and generalizations, elementary topology of the line
26A06 One-variable calculus
26A09 Elementary functions
26A12 Rate of growth of functions, orders of infinity, slowly increasing functions [See also 26A48.]
26A15 Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.) {For properties determined by Fourier coefficients, see 42A16; for those determined by approximation properties, see 41A25.}
26A16 Lipschitz (Hölder) classes
26A18 Iteration [See also 39B10, 47H10, 54H25.]
26A21 Classification of real functions; Baire classification of sets and functions [See also 04A15, 28A05, 54C50.]
26A24 Differentiation (functions of one variable): general theory, generalized derivatives, mean-value theorems [See also 28A15.]
26A27 Nondifferentiability (nondifferentiable functions, points of nondifferentiability), discontinuous derivatives
26A30 Singular functions, Cantor functions, functions with other special properties
26A33 Fractional derivatives and integrals
26A36 Antidifferentiation
26A39 Denjoy and Perron integrals, other special integrals
26A42 Integrals of Riemann, Stieltjes and Lebesgue type [See also 28–XX.]
26A45 Functions of bounded variation, generalizations
26A46 Absolutely continuous functions
26A48 Monotonic functions, generalizations
26A51 Convexity, generalizations
26A99 None of the above, but in this section

26Bxx Functions of several variables
26B05 Continuity and differentiation questions
26B10 Implicit function theorems, Jacobians, transformations with several variables
26B12 Calculus of vector functions
26B15 Integration: length, area, volume [See also 28A75, 51M25.]
26B20 Integral formulas (Stokes, Gauss, Green, etc.)
26B25 Convexity, generalizations
26B30 Absolutely continuous functions, functions of bounded variation
26B35 Special properties of functions of several variables, Hölder conditions, etc.
26B40 Representation and superposition of functions
26B99 None of the above, but in this section

26Cxx Polynomials, rational functions
26C05 Polynomials: analytic properties, inequalities, etc.
26C10 Polynomials: location of zeros [See also 12D10, 30C15, 65H05.]
26C15 Rational functions [See also 14G30.]
26C99 None of the above, but in this section

26Dxx Inequalities {For maximal function inequalities, see 42B25; for functional inequalities, see 39C05.}
26D05 Inequalities for trigonometric functions and polynomials
26D10 Inequalities involving derivatives and differential and integral operators
26D15 Inequalities for sums, series and integrals
26D20 Other analytical inequalities
26D99 None of the above, but in this section

26Exx Miscellaneous topics [See also 58Cxx.]
26E05 Real-analytic functions
26E10 C^∞-functions, quasianalytic functions
26E15 Calculus of functions on infinite-dimensional spaces
26E20 Calculus of functions taking values in infinite-dimensional spaces
26E25 Set-valued functions [See also 54C60.]
26E30 Non-Archimedean analysis [See also 12J25.]
26E35 Nonstandard analysis [See also 03H05.]
26E99 None of the above, but in this section

28–XX MEASURE AND INTEGRATION {For analysis on manifolds, see 58–XX.}

28–01 Elementary exposition, textbooks
28–02 Advanced exposition (research surveys, monographs, etc.)
28–03 Historical (must also be assigned at least one classification number from Section 01)
28–04 Explicit machine computation and programs (not the theory of computation or programming)

28–06 Proceedings, conferences, etc.

28Axx Classical measure theory

28A05 Classes of sets (Borel fields, σ-rings, etc.), measurable sets, Suslin sets, analytic sets [See also 04A15, 26A21, 54H05.]
28A10 Real- or complex-valued set functions
28A12 Contents, measures, outer measures, capacities
28A15 Abstract differentiation theory, differentiation of set functions [See also 26A24.]
28A20 Measurable and nonmeasurable functions, sequences of measurable functions, modes of convergence
28A25 Integration with respect to measures and other set functions
28A33 Spaces of measures, convergence of measures [See also 46E27, 60Bxx.]
28A35 Measures and integrals in product spaces
28A50 Integration and disintegration of measures
28A51 Lifting theory [See also 46G15.]
28A60 Measures on Boolean rings, measure algebras [See also 54H10.]
28A75 Length, area, volume, other geometric measure theory [See also 26B15, 49F20.]
28A99 None of the above, but in this section

28Bxx Measures and integrals with values in abstract spaces

28B05 Vector-valued measures and integrals [See also 46G10.]
28B10 Group- or semigroup-valued measures and integrals
28B15 Measures and integrals with values in general ordered systems
28B20 Set-valued measures; integration of set-valued functions; measurable selections [See also 54C60, 54C65.]
28B99 None of the above, but in this section

28Cxx Measures on spaces with additional structure [See also 46G12, 58C35, 58D20.]

28C05 Integration theory via linear functionals (Radon measures, Daniell integrals, etc.), representing measures
28C10 Measures on topological groups, Haar measures, invariant measures [See also 43A05.]
28C15 Measures on topological spaces (regularity of measures, etc.)
28C20 Measures and integrals in function spaces (Wiener measure, Gauss measure, etc.) [See also 58D20, 60B11.]
28C99 None of the above, but in this section

28Dxx Measure-theoretic ergodic theory [See also 22D40, 47A35, 54H20, 58Fxx, 60Fxx, 60G10.]

28D05 Measure-preserving transformations
28D10 One-parameter continuous families of measure-preserving transformations
28D15 General groups of measure-preserving transformations
28D20 Entropy and other invariants
28D99 None of the above, but in this section

30–XX FUNCTIONS OF A COMPLEX VARIABLE {For analysis on manifolds, see 58–XX.}

30–01 Elementary exposition, textbooks
30–02 Advanced exposition (research surveys, monographs, etc.)
30–03 Historical (must also be assigned at least one classification number from Section 01)
30–04 Explicit machine computation and programs (not the theory of computation or programming)
30–06 Proceedings, conferences, etc.

30Axx General properties

30A05 Monogenic properties of complex functions (including polygenic and areolar monogenic functions)
30A10 Inequalities in the complex domain
30A99 None of the above, but in this section

30Bxx Series expansions

30B10 Power series (including lacunary series)
30B20 Random power series
30B30 Boundary behavior of power series, over-convergence
30B40 Analytic continuation
30B50 Dirichlet series and other series expansions, exponential series [See also 40–XX, 41–XX, 42–XX.]
30B60 Completeness problems, closure of a system of functions
30B70 Continued fractions [See also 10A32, 40A15.]
30B99 None of the above, but in this section

30Cxx Geometric function theory

30C10 Polynomials
30C15 Zeros of polynomials, rational functions, and other analytic functions (e.g. zeros of functions with bounded Dirichlet integral) {For algebraic theory, see 12D10; for real methods, see 26C10.}
30C20 Conformal mappings of special domains
30C25 Covering theorems in conformal mapping theory
30C30 Numerical methods in conformal mapping theory [See also 65E05.]
30C35 General theory of conformal mappings
30C40 Kernel functions and applications
30C45 Special classes of univalent and multivalent functions (star-like, convex, bounded rotation, etc.)
30C50 Coefficient problems for univalent and multivalent functions
30C55 General theory of univalent and multivalent functions
30C60 Quasiconformal mappings
30C70 Extremal problems for conformal and quasiconformal mappings, variational methods
30C75 Extremal problems for conformal and quasiconformal mappings, other methods
30C80 Maximum principle; Schwarz' lemma, Lindelöf principle, analogues and generalizations; subordination
30C85 Capacity and harmonic measure in the complex plane [See also 31A15.]
30C99 None of the above, but in this section

30Dxx Entire and meromorphic functions, and related topics

30D05 Functional equations in the complex domain, iteration and composition of analytic functions [See also 34A20, 39–XX.]
30D10 Representations of entire functions by series and integrals
30D15 Special classes of entire functions and growth estimates
30D20 Entire functions, general theory
30D30 Meromorphic functions, general theory
30D35 Distribution of values, Nevanlinna theory
30D40 Cluster sets, prime ends, boundary behavior
30D45 Normal functions, normal families
30D50 Blaschke products, bounded characteristic, bounded functions, functions with positive real part
30D55 H^p-classes
30D60 Quasianalytic and other classes of functions
30D99 None of the above, but in this section

30Exx Miscellaneous topics of analysis in the complex domain

30E05 Moment problems, interpolation problems
30E10 Approximation in the complex domain
30E15 Asymptotic representations in the complex domain
30E20 Integration, integrals of Cauchy type, integral representations of analytic functions [See also 45Exx.]
30E25 Boundary value problems [See also 45Exx.]
30E99 None of the above, but in this section

30Fxx Riemann surfaces

30F10 Compact Riemann surfaces and uniformization [See also 14H15, 32G15.]
30F15 Harmonic functions on Riemann surfaces
30F20 Classification theory of Riemann surfaces
30F25 Ideal boundary theory
30F30 Differentials on Riemann surfaces
30F35 Fuchsian groups and automorphic functions [See also 10Dxx, 20H10, 32Gxx, 32Nxx.]
30F40 Kleinian groups [See also 20H10.]
30F99 None of the above, but in this section

30Gxx Generalized function theory

30G05 Non-Archimedean function theory [See also 12J25.]
30G10 Nonstandard function theory [See also 03H05.]
30G15 Topological function theory
30G20 Generalizations of Bers or Vekua type (pseudoanalytic, p-analytic, etc.)
30G25 Discrete analytic functions
30G30 Other generalizations of analytic functions (including abstract-valued functions)
30G35 Functions of hypercomplex variables and generalized variables
30G99 None of the above, but in this section

30H05 **Spaces and algebras of analytic functions [See also 32E25, 46Exx, 46J15.]**

31–XX POTENTIAL THEORY {For probabilistic potential theory, see 60J45.}

31–01 Elementary exposition, textbooks
31–02 Advanced exposition (research surveys, monographs, etc.)
31–03 Historical (must also be assigned at least one classification number from Section 01)
31–04 Explicit machine computation and programs (not the theory of computation or programming)
31–06 Proceedings, conferences, etc.

31Axx Two-dimensional theory

31A05 Harmonic, subharmonic, superharmonic functions
31A10 Integral representations
31A15 Potentials and capacity, harmonic measure, extremal length [See also 30C85.]
31A20 Boundary behavior (theorems of Fatou type, etc.)
31A25 Boundary value and inverse problems
31A30 Biharmonic, polyharmonic functions and equations, Poisson's equation
31A35 Connections with differential equations
31A99 None of the above, but in this section

31Bxx Higher-dimensional theory

31B05 Harmonic, subharmonic, superharmonic functions
31B10 Integral representations
31B15 Potentials and capacities, extremal length
31B20 Boundary value and inverse problems
31B25 Boundary behavior
31B30 Biharmonic and polyharmonic equations and functions
31B35 Connections with differential equations
31B99 None of the above, but in this section

31Cxx Other generalizations

31C05 Harmonic, subharmonic, superharmonic functions
31C10 Pluriharmonic and plurisubharmonic functions [See also 32F05.]
31C12 Potential theory on Riemannian manifolds [See also 53C20; for Hodge theory, see 58A14.]
31C15 Potentials and capacities
31C20 Discrete potential theory and numerical methods
31C25 Dirichlet spaces
31C35 Martin boundary theory [See also 60J50.]
31C99 None of the above, but in this section

31D05 **Axiomatic potential theory**

32–XX SEVERAL COMPLEX VARIABLES AND ANALYTIC SPACES {For infinite-dimensional holomorphy, see also 46G20, 58B12.}

32–01 Elementary exposition, textbooks
32–02 Advanced exposition (research surveys, monographs, etc.)
32–03 Historical (must also be assigned at least one classification number from Section 01)
32–04 Explicit machine computation and programs (not the theory of computation or programming)
32–06 Proceedings, conferences, etc.

32Axx Holomorphic functions of several complex variables

32A05 Power series, series of functions
32A07 Special domains (Reinhardt, Hartogs, tube domains, etc.)
32A10 Holomorphic functions
32A15 Entire functions
32A17 Normal families
32A20 Meromorphic functions
32A22 Nevanlinna theory: growth estimates {For geometric theory, see 32H25, 32H30.}
32A25 Integral representation
32A27 Local theory of residues [See also 32C30.]
32A30 Other generalizations of function theory of one complex variable (should also be assigned at least one classification number from Section 30) {For functions of several hypercomplex variables, see 30G35.}
32A35 H^p-spaces [See also 32M15, 42B30, 43A85, 46J15.]
32A40 Boundary behavior
32A45 Hyperfunctions [See also 46F15.]
32A99 None of the above, but in this section

32Bxx Local analytic geometry [See also 13–XX and 14–XX.]

32B05 Analytic algebra and generalizations, preparation theorems
32B10 Germs of analytic sets
32B15 Analytic subsets of affine space
32B20 Semi-analytic sets and subanalytic sets
32B25 Triangulation and related questions
32B30 Local singularities [See also 14B05, 32C40, 32C42.]
32B99 None of the above, but in this section

32Cxx General theory of analytic spaces

32C05 Real-analytic manifolds, real-analytic spaces [See also 14G30, 58A07.]
32C10 Complex manifolds {For almost complex manifolds, see 53C15.}
32C15 Complex spaces
32C20 Normal analytic spaces
32C25 Analytic subsets and submanifolds
32C30 Integration on analytic sets and spaces, currents {For local theory, see 32A25 or 32A27.}
32C35 Analytic sheaves and cohomology groups [See also 14Fxx, 18F20, 55N30.]
32C36 Local cohomology of analytic spaces
32C37 Duality theorems
32C40 Singularities
32C42 Stratified sets, etc. [See also 32Bxx.]
32C45 Modifications, resolution of singularities [See also 14E15.]
32C99 None of the above, but in this section

32Dxx Analytic continuation

32D05 Domains of holomorphy
32D10 Envelopes of holomorphy
32D15 Continuation of analytic objects
32D20 Removable singularities
32D25 Non-Archimedean function theory
32D99 None of the above, but in this section

32Exx Holomorphic convexity

32E05 Holomorphically convex complex spaces, reduction theory
32E10 Stein spaces, Stein manifolds
32E15 Runge pairs
32E20 Polynomial convexity
32E25 Algebras of holomorphic functions [See also 30H05, 46J10, 46J15.]
32E27 Krasner-Tate algebras, etc. (algebras of holomorphic functions over non-Archimedean fields)
32E30 Holomorphic and polynomial approximation
32E35 Global boundary behavior of holomorphic functions
32E99 None of the above, but in this section

32Fxx Geometric convexity

32F05 Plurisubharmonic functions and generalizations [See also 31C10.]
32F10 q-convexity, q-concavity
32F15 Pseudoconvex domains
32F20 Geometric results on $\bar{\partial}$-Neumann problems [See also 35N15.]
32F25 Real submanifolds in complex manifolds
32F30 Pseudoconvex manifolds
32F99 None of the above, but in this section

32Gxx Deformations of analytic structures

32G05 Deformations of complex structures [See also 13D10, 16A58, 58H10, 58H15.]
32G07 Deformations of special (e.g. CR) structures
32G10 Deformations of submanifolds and subspaces
32G11 Deformations of singularities
32G13 Analytic moduli problems {For algebraic moduli problems, see 14D20.}
32G15 Moduli of Riemann surfaces, Teichmüller theory [See also 14H15, 30Fxx.]
32G20 Period matrices [See also 14H05.]
32G99 None of the above, but in this section

32Hxx Holomorphic mappings

32H05 Representative domains
32H10 Bergman kernel function
32H15 Invariant metrics and pseudodistances

32H20 Hyperbolic complex manifolds
32H25 Picard type theorems and generalizations {For function-theoretic properties, see 32A22.}
32H30 Value distribution theory in higher dimensions {For function-theoretic properties, see 32A22.}
32H99 None of the above, but in this section

32Jxx Compact analytic spaces {For Riemann surfaces, see 14Hxx, 30Fxx.}
32J05 Compactification
32J10 Algebraic dependence theorems
32J15 Compact surfaces
32J20 Algebraicity criteria
32J25 Transcendental methods of algebraic geometry [See also 14C30.]
32J99 None of the above, but in this section

32Kxx Generalizations of analytic spaces (should also be assigned at least one other classification number in this section)
32K05 Banach analytic spaces [See also 58Bxx.]
32K10 Non-Archimedean analytic spaces
32K15 Differentiable functions on analytic spaces, differentiable spaces [See also 58C25.]
32K99 None of the above, but in this section

32Lxx Holomorphic fiber spaces [See also 55Rxx.]
32L05 Holomorphic fiber bundles and generalizations
32L10 Sheaves and cohomology of sections of holomorphic vector bundles, general results [See also 18F20, 55N30.]
32L15 Bundle convexity [See also 32F10.]
32L20 Vanishing theorems
32L99 None of the above, but in this section

32Mxx Complex spaces with a group of automorphisms
32M05 Complex Lie groups, automorphism groups of complex spaces [See also 22E10.]
32M10 Homogeneous complex manifolds [See also 14M17, 57T15.]
32M15 Hermitian symmetric spaces, bounded symmetric domains [See also 22E10, 22E40, 53C35, 57T15.]
32M99 None of the above, but in this section

32Nxx Automorphic functions [See also 10Dxx, 20H10, 22E40, 30F35.]
32N05 General theory of automorphic functions of several complex variables
32N10 Automorphic forms
32N15 Automorphic functions in symmetric domains
32N99 None of the above, but in this section

33–XX SPECIAL FUNCTIONS {33–XX deals with the properties of functions as functions. General systems of orthogonal functions are treated in 42C05. Expansions in orthogonal functions are treated in 42C10, 42C15.}

33–01 Elementary exposition, textbooks
33–02 Advanced exposition (research surveys, monographs, etc.)
33–03 Historical (must also be assigned at least one classification number from Section 01)
33–04 Explicit machine computation and programs (not the theory of computation or programming)
33–06 Proceedings, conferences, etc.
33A10 Exponential and trigonometric functions
33A15 Gamma and beta functions
33A20 Error function, probability integral
33A25 Elliptic functions and integrals
33A30 Simple hypergeometric functions of one and several variables
33A35 Generalized hypergeometric functions of one and several variables (*E*-functions, *G*-functions, *H*-functions, etc.)
33A40 Cylindrical functions, Bessel functions
33A45 Spherical functions (Legendre polynomials and functions, spherical harmonics), ultraspherical polynomials
33A50 Gegenbauer functions
33A55 Lamé, Mathieu, spheroidal wave functions
33A60 Other wave functions
33A65 Orthogonal special functions and polynomials (Čebyšev, Hermite, Jacobi, Laguerre, etc.)
33A70 Other special functions
33A75 Special functions and Lie groups [See also 22Exx, 43A80.]
33A99 Miscellaneous topics

34–XX ORDINARY DIFFERENTIAL EQUATIONS

34–01 Elementary exposition, textbooks
34–02 Advanced exposition (research surveys, monographs, etc.)
34–03 Historical (must also be assigned at least one classification number from Section 01)
34–04 Explicit machine computation and programs (not the theory of computation or programming)
34–06 Proceedings, conferences, etc.

34Axx General theory
34A05 Solutions in closed form, integration by quadratures, reduction of differential equations
34A08 Equations not solved with respect to the highest-order derivative, singular solutions
34A10 Initial value problems: general existence and uniqueness theorems; continuous dependence of solutions on parameters, initial conditions and boundary conditions [See also 45D05.]
34A15 Initial value problems: continuation of solutions
34A20 Differential equations in the complex domain [See also 30D05.]
34A25 Analytical theory: series, transformations, transforms, operational calculus, etc. [See also 44–XX, 47E05.]
34A30 Linear equations and systems
34A34 Nonlinear equations and systems, general
34A35 Differential equations of infinite order
34A40 Differential inequalities
34A45 Theoretical approximation of solutions
34A50 Numerical approximation of solutions {For numerical analysis, see 65Lxx.}
34A55 Inverse problems
34A60 Equations with multivalued right-hand sides [See also 49A50, 49E10.]
34A99 None of the above, but in this section

34Bxx Boundary value problems
34B05 Linear equations
34B10 Multipoint boundary value problems
34B15 Nonlinear boundary value problems
34B20 Weyl theory and its generalizations
34B25 Spectral theory, Sturm-Liouville, and scattering theory; eigenfunctions, eigenvalues, and expansions [See also 42–XX, 43–XX, 45C05, 47Axx, 47Bxx, 47E05.]
34B27 Green functions
34B30 Special equations (Mathieu, Hill, Bessel, etc.) [See also 33–XX.]
34B99 None of the above, but in this section

34Cxx Qualitative theory
34C05 Location of integral curves, singular points, limit cycles
34C10 Zeros, disconjugacy, oscillation and comparison of solutions
34C11 Growth, boundedness of solutions
34C15 Nonlinear oscillations
34C20 Transformation and reduction of equations and systems
34C25 Periodic solutions
34C27 Almost-periodic solutions
34C28 Other types of "recurrent" solutions
34C29 Averaging method [See also 47H10.]
34C30 Manifolds of solutions
34C35 Dynamical systems [See also 54H20, 58Fxx, 70–XX.]
34C40 Equations and systems on manifolds [See mainly 58Fxx, 58Gxx.]
34C45 Method of integral manifolds
34C50 Method of accelerated convergence
34C99 None of the above, but in this section

34Dxx Stability theory [See also 58F10, 93Dxx.]
34D05 Asymptotic properties; characteristic exponents
34D10 Perturbations
34D15 Singular perturbations
34D20 Ljapunov stability
34D25 Popov-type stability

34D30 Structural stability and analogous concepts [See also 58Fxx.]
34D40 Ultimate boundedness
34D99 None of the above, but in this section

34Exx Asymptotic theory
34E05 Asymptotic expansions
34E10 Perturbations
34E15 Singular perturbations, general theory
34E20 Singular perturbations, turning point theory, WKB-methods
34E99 None of the above, but in this section

34F05 Equations and systems with randomness [See also 60H10, 93Exx.]

34Gxx Differential equations in abstract spaces [See also 58D25.]
34G10 Linear equations [See also 47Axx, 47Bxx, 47D05.]
34G20 Nonlinear equations [See also 47Hxx.]
34G99 None of the above, but in this section

34H05 Control problems [See also 49–XX, 93–XX.]

34Kxx Functional-differential and differential-difference equations, with or without deviating (or retarded) arguments
34K05 General theory
34K10 Boundary value problems
34K15 Qualitative theory
34K20 Stability theory
34K25 Asymptotic theory
34K30 Equations in abstract spaces
34K35 Control problems
34K99 None of the above, but in this section

35–XX PARTIAL DIFFERENTIAL EQUATIONS

35–01 Elementary exposition, textbooks
35–02 Advanced exposition (research surveys, monographs, etc.)
35–03 Historical (must also be assigned at least one classification number from Section 01)
35–04 Explicit machine computation and programs (not the theory of computation or programming)
35–06 Proceedings, conferences, etc.

35Axx General theory
35A05 General existence and uniqueness theorems
35A07 Local existence and uniqueness theorems [See also 35H05, 35Sxx.]
35A08 Fundamental solutions
35A10 Cauchy-Kowalewski theorems
35A15 Variational methods
35A20 Analytic methods, singularities
35A22 Transform methods
35A25 Other special methods
35A30 Geometric theory, characteristics, transformations
35A35 Theoretical approximation to solutions
35A40 Numerical approximation to solutions {For numerical analysis, see 65Mxx, 65Nxx, 65P05.}
35A99 None of the above, but in this section

35Bxx Qualitative properties of solutions
35B05 Comparison theorems; oscillation, zeros and growth of solutions
35B10 Periodic solutions
35B15 Almost periodic solutions
35B20 Perturbations
35B25 Singular perturbations
35B30 Dependence of solutions on initial and boundary data, parameters
35B32 Bifurcation
35B35 Stability, boundedness
35B37 Control [See also 49–XX, 93–XX.]
35B40 Asymptotic behavior of solutions
35B45 A priori estimates
35B50 Maximum principles
35B60 Continuation and prolongation [See also 58A15, 58A17, 58Hxx.]
35B65 Smoothness of solutions
35B99 None of the above, but in this section

35Cxx Representations of solutions
35C05 Solutions in closed form
35C10 Series solutions, expansion theorems
35C15 Integral representations
35C20 Asymptotic expansions
35C99 None of the above, but in this section

35Dxx Generalized solutions
35D05 Existence of generalized solutions
35D10 Regularity of generalized solutions
35D99 None of the above, but in this section

35Exx Equations and systems with constant coefficients [See also 35N05.]
35E05 Fundamental solutions
35E10 Convexity properties
35E15 Initial value problems
35E20 General theory
35E99 None of the above, but in this section

35Fxx General first-order equations and systems
35F05 Linear equations and systems, general
35F10 Initial value problems for linear equations and systems
35F15 Boundary value problems for linear equations and systems
35F20 Nonlinear equations and systems, general
35F25 Initial value problems for nonlinear equations and systems
35F30 Boundary value problems for nonlinear equations and systems
35F99 None of the above, but in this section

35Gxx General higher-order equations and systems
35G05 Linear equations and systems, general
35G10 Initial value problems for linear equations and systems
35G15 Boundary value problems for linear equations and systems
35G20 Nonlinear equations and systems, general
35G25 Initial value problems for nonlinear equations and systems
35G30 Boundary value problems for nonlinear equations and systems
35G99 None of the above, but in this section

35H05 Hypoelliptic equations and systems [See also 58Gxx.]

35Jxx Elliptic equations and systems [See also 58G05, 58G10.]
35J05 Laplace equation, reduced wave equation (Helmholtz), Poisson equation
35J10 Schrödinger operator [See also 47A40.]
35J15 Second-order equations, general
35J20 Second-order equations, variational methods
35J25 Second-order equations, boundary value problems
35J30 Higher-order equations, general
35J35 Higher-order equations, variational methods
35J40 Higher-order equations, boundary value problems
35J45 Systems, general
35J50 Systems, variational methods
35J55 Systems, boundary value problems
35J60 Nonlinear equations and systems
35J65 Nonlinear boundary value problems for linear equations and systems; boundary value problems for nonlinear equations and systems
35J67 Boundary values of solutions
35J70 Equations and systems of degenerate type
35J85 Unilateral problems; variational inequalities [See also 35R35, 49A29.]
35J99 None of the above, but in this section

35Kxx Parabolic equations and systems [See also 58G11.]
35K05 Heat equation
35K10 Second-order equations, general
35K15 Second-order equations, initial value problems
35K20 Second-order equations, boundary value problems
35K22 Evolution equations (any order in the spatial derivatives) [See also 58D25.]
35K25 Higher-order equations, general
35K30 Higher-order equations, initial value problems
35K35 Higher-order equations, boundary value problems
35K40 Systems, general
35K45 Systems, initial value problems

35K50 Systems, boundary value problems
35K55 Nonlinear equations and systems
35K60 Nonlinear boundary value problems for linear equations and systems; boundary value problems for nonlinear equations and systems
35K65 Equations and systems of degenerate type
35K70 Ultraparabolic, pseudoparabolic problems
35K85 Unilateral problems; variational inequalities [See also 35R35, 49A29.]
35K99 None of the above, but in this section

35Lxx Hyperbolic equations and systems [See also 58G16.]
35L05 Wave equation
35L10 Second-order equations, general
35L15 Second-order equations, initial value problems
35L20 Second-order equations, boundary value problems
35L25 Higher-order equations, general
35L30 Higher-order equations, initial value problems
35L35 Higher-order equations, boundary value problems
35L40 First-order systems, general
35L45 First-order systems, initial value problems
35L50 First-order systems, boundary value problems
35L55 Higher-order hyperbolic systems
35L60 First-order nonlinear equations and systems
35L65 Conservation laws [See also 76–XX.]
35L67 Shocks and singularities
35L70 Second-order nonlinear equations and systems
35L75 Higher (>2) order nonlinear equations and systems
35L80 Equations and systems of degenerate type
35L85 Unilateral problems; variational inequalities [See also 35R35, 49A29.]
35L99 None of the above, but in this section

35M05 Equations and systems of mixed (Tricomi, etc.) or composite type {For degenerate types, elliptic, see 35Jxx, parabolic, see 35Kxx, hyperbolic, see 35Lxx, etc.}

35Nxx Overdetermined systems [See also 58G05, 58G07, 58Hxx.]
35N05 Constant coefficients
35N10 Variable coefficients, general
35N15 $\bar{\partial}$-Neumann problem and generalizations; formal complexes [See also 32Fxx and 58G05.]
35N99 None of the above, but in this section

35Pxx Spectral theory and eigenvalue problems [See also 47Axx, 47Bxx, 47F05.]
35P05 General spectral theory
35P10 Completeness of eigenfunctions, eigenfunction expansions
35P15 Estimation of eigenvalues, upper and lower bounds
35P20 Asymptotic distribution of eigenvalues and eigenfunctions
35P25 Scattering theory [See also 47A40.]
35P30 Nonlinear eigenvalue problems
35P99 None of the above, but in this section

35Qxx Special equations and problems [See also 35J05, 35K05, 35L05.]
35Q05 Euler-Poisson-Darboux equation and generalizations
35Q10 Navier-Stokes equations [See also 76D05.]
35Q15 Riemann-Hilbert problems [See also 30E25, 31A25, 31B20.]
35Q20 Particular equations of mathematical physics (Korteweg-de Vries, Burgers, etc.)
35Q99 None of the above, but in this section

35Rxx Miscellaneous topics {For equations on manifolds, see 58Gxx; for manifolds of solutions, see 58Bxx; for stochastic PDEs, see also 60H15.}
35R05 Equations with discontinuous coefficients or data
35R10 Difference-partial differential equations, equations with time lag
35R15 Equations on function spaces [See also 58D25.]
35R20 Operator equations, general [See also 34Gxx, 47A50, 47H15.]
35R25 Improperly posed problems
35R30 Inverse problems (undetermined coefficients, etc.)
35R35 Free boundary problems
35R45 Differential inequalities
35R60 Equations and systems with randomness
35R99 None of the above, but in this section

35Sxx Pseudodifferential operators [See also 47G05, 58G15.]
35S05 General theory
35S10 Initial value problems
35S15 Boundary value problems
35S99 None of the above, but in this section

39–XX FINITE DIFFERENCES AND FUNCTIONAL EQUATIONS

39–01 Elementary exposition, textbooks
39–02 Advanced exposition (research surveys, monographs, etc.)
39–03 Historical (must also be assigned at least one classification number from Section 01)
39–04 Explicit machine computation and programs (not the theory of computation or programming)
39–06 Proceedings, conferences, etc.

39Axx Finite differences [See also 65–XX.]
39A05 General
39A10 Difference equations
39A11 Stability of difference equations
39A12 Discrete version of topics in analysis
39A70 Difference operators [See also 47B39.]
39A99 None of the above, but in this section

39Bxx Functional equations [See also 30D05.]
39B05 General
39B10 Equations containing iterates, equations of rank one
39B20 Equations for one unknown function of one variable, rank greater than one
39B30 Equations for several unknown functions of one variable, systems
39B40 Equations for functions of several variables
39B50 Functional equations on algebraic structures
39B60 Matrix functional equations
39B70 Functional equations on abstract spaces or structures
39B99 None of the above, but in this section

39C05 Functional inequalities [See also 26Dxx.]

40–XX SEQUENCES, SERIES, SUMMABILITY

40–01 Elementary exposition, textbooks
40–02 Advanced exposition (research surveys, monographs, etc.)
40–03 Historical (must also be assigned at least one classification number from Section 01)
40–04 Explicit machine computation and programs (not the theory of computation or programming)
40–06 Proceedings, conferences, etc.

40Axx Convergence and divergence of infinite limiting processes
40A05 Convergence and divergence of series and sequences
40A10 Convergence and divergence of integrals
40A15 Convergence and divergence of continued fractions [See also 30B70.]
40A20 Convergence and divergence of infinite products
40A25 Approximation to limiting values (summation of series, etc.) {For the Euler-Maclaurin summation formula, see 65B15.}
40A30 Convergence and divergence of series and sequences of functions
40A99 None of the above, but in this section

40B05 Multiple sequences and series (should also be assigned at least one other classification number in this section)

40Cxx General summability methods
40C05 Matrix methods
40C10 Integral methods
40C15 Function-theoretic methods (including power series methods and semicontinuous methods)
40C99 None of the above, but in this section

40Dxx Direct theorems on summability
40D05 General theorems
40D09 Structure of summability fields
40D10 Tauberian constants and oscillation limits
40D15 Convergence factors and summability factors

40D20 Summability and bounded fields of methods
40D25 Inclusion and equivalence theorems
40D99 None of the above, but in this section

40Exx Inversion theorems
40E05 Tauberian theorems, general
40E10 Growth estimates
40E15 Lacunary inversion theorems
40E20 Tauberian constants
40E99 None of the above, but in this section

40F05 Absolute and strong summability

40Gxx Special methods of summability
40G05 Cesàro, Euler, Nörlund and Hausdorff methods
40G10 Abel, Borel and power series methods
40G99 None of the above, but in this section

40H05 Functional analytic methods in summability

40J05 Summability in abstract structures [See also 43A55, 46A35, 46B15.]

41–XX APPROXIMATIONS AND EXPANSIONS {For all approximation theory in the complex domain, see 30E05 and 30E10; for all trigonometric approximation and interpolation, see 42A10 and 42A15; for numerical approximation, see 65Dxx.}

41–01 Elementary exposition, textbooks
41–02 Advanced exposition (research surveys, monographs, etc.)
41–03 Historical (must also be assigned at least one classification number from Section 01)
41–04 Explicit machine computation and programs (not the theory of computation or programming)
41–06 Proceedings, conferences, etc.
41A05 Interpolation [See also 42A15 and 65D05.]
41A10 Approximation by polynomials {For approximation by trigonometric polynomials, see 42A10.}
41A15 Spline approximation
41A17 Inequalities in approximation (Bernšteĭn, Jackson, Nikol′skiĭ type inequalities)
41A20 Approximation by rational functions
41A21 Padé approximation
41A25 Rate of convergence, degree of approximation
41A27 Inverse theorems
41A28 Simultaneous approximation
41A29 Approximation with constraints
41A30 Approximation by other special function classes
41A35 Approximation by operators (in particular, by integral operators)
41A36 Approximation by positive operators
41A40 Saturation
41A44 Best constants
41A45 Approximation by arbitrary linear expressions
41A46 Approximation by arbitrary nonlinear expressions; widths and entropy
41A50 Best approximation, including Čebyšev systems
41A52 Uniqueness of best approximation
41A55 Approximate quadratures
41A58 Series expansions (e.g. Taylor, Lidstone series, but not Fourier series)
41A60 Asymptotic approximations, asymptotic expansions (steepest descent, etc.) [See also 30E15.]
41A63 Multidimensional problems (should also be assigned at least one other classification number in this section)
41A65 Abstract approximation theory (approximation in normed linear spaces and other abstract spaces)
41A80 Remainders in approximation formulas
41A99 Miscellaneous topics

42–XX FOURIER ANALYSIS

42–01 Elementary exposition, textbooks
42–02 Advanced exposition (research surveys, monographs, etc.)
42–03 Historical (must also be assigned at least one classification number from Section 01)
42–04 Explicit machine computation and programs (not the theory of computation or programming)
42–06 Proceedings, conferences, etc.

42Axx Fourier analysis in one variable
42A05 Trigonometric polynomials, inequalities, extremal problems
42A10 Trigonometric approximation
42A15 Trigonometric interpolation
42A16 Fourier coefficients, Fourier series of functions with special properties, special Fourier series
42A20 Convergence of Fourier and trigonometric series
42A24 Summability of Fourier and trigonometric series
42A28 Absolute convergence, absolute summability
42A32 Trigonometric series of special types (positive coefficients, monotonic coefficients, etc.)
42A38 Fourier and Fourier-Stieltjes transforms and other transforms of Fourier type
42A45 Multipliers
42A50 Conjugate functions, conjugate series, singular integrals
42A55 Lacunary series of trigonometric and other functions; Riesz products
42A61 Probabilistic methods
42A63 Uniqueness of trigonometric expansions, uniqueness of Fourier expansions, Riemann theory, localization
42A65 Completeness of sets of functions
42A70 Trigonometric moment problems
42A75 Classical almost periodic functions, mean periodic functions [See also 43A60.]
42A82 Positive definite functions
42A85 Convolution, factorization
42A99 None of the above, but in this section

42Bxx Fourier analysis in several variables
42B05 Fourier series and coefficients
42B10 Fourier and Fourier-Stieltjes transforms and other transforms of Fourier type
42B15 Multipliers
42B20 Singular integrals (Calderón-Zygmund, etc.)
42B25 Maximal functions, Littlewood-Paley theory
42B30 H^p-spaces
42B99 None of the above, but in this section

42Cxx Nontrigonometric Fourier analysis
42C05 Orthogonal functions and polynomials, general theory [See also 33A65.]
42C10 Fourier series in special orthogonal functions (Legendre polynomials, Walsh functions, etc.)
42C15 Series of general orthogonal functions, generalized Fourier expansions, nonorthogonal expansions
42C20 Rearrangements and other transformations of Fourier and other orthogonal series
42C25 Uniqueness and localization for orthogonal series
42C30 Completeness of sets of functions
42C99 None of the above, but in this section

43–XX ABSTRACT HARMONIC ANALYSIS {For other analysis on topological and Lie groups, see 22Exx.}

43–01 Elementary exposition, textbooks
43–02 Advanced exposition (research surveys, monographs, etc.)
43–03 Historical (must also be assigned at least one classification number from Section 01)
43–04 Explicit machine computation and programs (not the theory of computation or programming)
43–06 Proceedings, conferences, etc.
43A05 Measures on groups, semigroups, etc.
43A07 Means on groups, semigroups, etc.
43A10 Measure algebras on groups, semigroups, etc.
43A15 L^p-spaces and other function spaces on groups, semigroups, etc.
43A17 Analysis on ordered groups, H^p-theory
43A20 L^1-algebras on groups, semigroups, etc.
43A22 Homomorphisms and multipliers of function spaces on groups, semigroups, etc.
43A25 Fourier and Fourier-Stieltjes transforms on locally compact abelian groups
43A30 Fourier and Fourier-Stieltjes transforms on nonabelian groups and on semigroups, etc.
43A32 Other transforms and operators of Fourier type
43A35 Positive definite functions on groups, semigroups, etc.

43A40 Character groups and dual objects
43A45 Spectral synthesis on groups, semigroups, etc.
43A46 Special sets (thin sets, Kronecker sets, Helson sets, Ditkin sets, Sidon sets, etc.)
43A50 Convergence of Fourier series and of inverse transforms
43A55 Summability methods on groups, semigroups, etc. [See also 40J05.]
43A60 Almost periodic functions on groups and semigroups and their generalizations (recurrent functions, distal functions, etc.); almost automorphic functions
43A65 Representations of groups, semigroups, etc. [See also 22Dxx.]
43A70 Analysis on specific locally compact abelian groups [See also 12A85.]
43A75 Analysis on specific compact groups
43A77 Analysis on general compact groups
43A80 Analysis on other specific Lie groups [See also 22E30.]
43A85 Analysis on homogeneous spaces
43A90 Spherical functions [See also 22E45, 22E46.]
43A95 Categorical methods [See also 18–XX, 46Mxx.]
43A99 Miscellaneous topics

44–XX INTEGRAL TRANSFORMS, OPERATIONAL CALCULUS {For fractional derivatives and integrals, see 26A33. For numerical methods, see 65R10.}

44–01 Elementary exposition, textbooks
44–02 Advanced exposition (research surveys, monographs, etc.)
44–03 Historical (must also be assigned at least one classification number from Section 01)
44–04 Explicit machine computation and programs (not the theory of computation or programming)
44–06 Proceedings, conferences, etc.
44A05 General transforms [See also 42A38.]
44A10 Laplace transform
44A15 Special transforms (Legendre, Hilbert, etc.)
44A20 Transforms of special functions
44A30 Multiple transforms
44A35 Convolution
44A40 Calculus of Mikusiński and other similar operational calculi
44A45 Classical operational calculus
44A55 Discrete operational calculus
44A60 Moment problems
44A99 Miscellaneous topics

45–XX INTEGRAL EQUATIONS

45–01 Elementary exposition, textbooks
45–02 Advanced exposition (research surveys, monographs, etc.)
45–03 Historical (must also be assigned at least one classification number from Section 01)
45–04 Explicit machine computation and programs (not the theory of computation or programming)
45–06 Proceedings, conferences, etc.
45A05 **Linear integral equations**
45B05 **Fredholm integral equations**
45C05 **Eigenvalue problems [See also 34B25, 35Pxx, 45P05.]**
45D05 **Volterra integral equations [See also 34A10.]**
45Exx **Singular integral equations [See also 30E20, 30E25, 44A15, 44A35.]**
45E05 Integral equations with kernels of Cauchy type [See also 35J15.]
45E10 Integral equations of the convolution type (Abel, Picard, Toeplitz and Wiener-Hopf type) [See also 47B35.]
45E99 None of the above, but in this section
45Fxx **Systems of linear integral equations**
45F05 Systems of nonsingular linear integral equations
45F10 Dual, triple, etc., integral and series equations
45F15 Systems of singular linear integral equations
45F99 None of the above, but in this section
45Gxx **Nonlinear integral equations [See also 47Hxx.]**
45G05 Singular nonlinear integral equations
45G10 Other nonlinear integral equations
45H05 **Miscellaneous special kernels [See also 44A15.]**
45J05 **Integro-ordinary differential equations**
45K05 **Integro-partial differential equations**
45Lxx **Approximation of solutions**
45L05 Theoretical approximation of solutions
45L10 Numerical approximation of solutions {For numerical analysis, see 65R20.}
45L99 None of the above, but in this section
45Mxx **Qualitative behavior**
45M05 Asymptotics
45M10 Stability theory
45M99 None of the above, but in this section
45N05 **Abstract integral equations, integral equations in abstract spaces**
45P05 **Integral operators [See also 47Axx, 47Bxx, 47G05.]**

46–XX FUNCTIONAL ANALYSIS {For manifolds modeled on topological linear spaces, see 57N20, 58Bxx.}

46–01 Elementary exposition, textbooks
46–02 Advanced exposition (research surveys, monographs, etc.)
46–03 Historical (must also be assigned at least one classification number from Section 01)
46–04 Explicit machine computation and programs (not the theory of computation or programming)
46–06 Proceedings, conferences, etc.
46Axx **Topological linear spaces**
46A05 Locally convex spaces
46A06 Metrizable topological linear spaces and their duals (F-, DF-spaces, etc.)
46A07 Barrelled spaces
46A09 Bornological spaces
46A10 Locally bounded topological linear spaces
46A12 Spaces defined by special inductive or projective limits (LF-, nuclear, Schwartz, Silva spaces, etc.) [See also 46M10, 46M40.]
46A14 Spaces defined by compactness properties (Montel spaces, etc.)
46A15 Other topological linear spaces
46A20 Duality theory
46A22 Extension and lifting of functionals and operators [See also 46M10.]
46A25 Reflexivity and semi-reflexivity
46A30 Open mappings and closed graph theorems and completeness (including B-, B_r-completeness)
46A32 Spaces of linear operators
46A35 Summability and bases
46A40 Ordered topological linear spaces, vector lattices [See also 06F20, 46B30.]
46A45 Sequence spaces (including Köthe sequence spaces)
46A50 Compactness in topological linear spaces
46A55 Convexity, Choquet theory [See also 52A07.]
46A99 None of the above, but in this section
46Bxx **Normed linear spaces and Banach spaces {For function spaces, see 46Exx.}**
46B05 Topology in terms of the norms
46B10 Duality and reflexivity
46B15 Summability and bases
46B20 Geometry and structure
46B22 Spaces with Radon-Nikodým property [See also 46G10.]
46B25 Classical Banach spaces in the general theory
46B30 Banach lattices [See also 46A40.]
46B99 None of the above, but in this section
46Cxx **Inner product spaces, Hilbert spaces {For function spaces, see 46Exx.}**
46C05 Geometry and topology of the spaces
46C10 Other properties of such spaces
46C99 None of the above, but in this section
46D05 **Spaces with indefinite inner product**
46Exx **Linear function spaces and their duals [See also 30H05; for function algebras, see 46J10.]**
46E05 Lattices of continuous, differentiable or analytic functions
46E10 Topological linear spaces of continuous, differentiable or analytic functions
46E15 Banach spaces of continuous, differentiable or analytic functions

46E20 Hilbert spaces of continuous, differentiable or analytic functions
46E25 Rings and algebras of continuous, differentiable or analytic functions {For Banach function algebras, see 46J10, 46J15.}
46E27 Spaces of measures [See also 28A33.]
46E30 Spaces of measurable functions (L^p-spaces, Orlicz spaces, Köthe function spaces, Lorentz spaces, rearrangement invariant spaces, etc.)
46E35 Sobolev spaces and other spaces of "smooth" functions, imbedding theorems, trace theorems
46E39 Sobolev (and similar kinds of) spaces of functions of discrete variables
46E40 Spaces of vector- and operator-valued functions
46E99 None of the above, but in this section

46Fxx Distributions, generalized functions, distribution spaces {For distribution theory on nonlinear spaces, see 58Cxx.}
46F05 Topological linear spaces of test functions and distributions
46F10 Operations with distributions
46F12 Integral transforms in distribution spaces [See also 42–XX, 44–XX.]
46F15 Hyperfunctions, analytic functionals [See also 32A25, 32A45, 32C35, 58G07.]
46F20 Distributions as boundary values of analytic functions [See also 30Exx, 32A40.]
46F25 Distributions on infinite-dimensional spaces [See also 58C35.]
46F99 None of the above, but in this section

46Gxx Measures, integration, derivative {For integration on infinite-dimensional spaces, see 28C20; for nonlinear functional analysis, see 58–XX, especially 58Cxx.}
46G05 Derivatives
46G10 Vector-valued measures and integration [See also 28Bxx, 46B22.]
46G12 Measures and integration on abstract linear spaces [See also 28Cxx.]
46G15 Lifting theory [See also 28A51.]
46G20 Infinite-dimensional holomorphy [See also 32–XX, 58B12, 58C10.]
46G99 None of the above, but in this section

46Hxx Topological algebras, normed rings and algebras, Banach algebras {For group algebras, convolution algebras and measure algebras, see 43–XX.}
46H05 General theory
46H10 Ideals and subalgebras
46H15 Representations
46H20 Structure, classification
46H25 Normed modules and Banach modules, topological modules (if not placed in 13–XX or 16–XX)
46H30 Functional calculus [See also 47A60.]
46H99 None of the above, but in this section

46Jxx Commutative Banach algebras and commutative topological algebras
46J05 General theory
46J10 Banach algebras of continuous functions, function algebras
46J15 Banach algebras of differentiable or analytic functions, H^p-spaces [See also 30H05, 32A35, 32E25, 42B30.]
46J20 Ideals, maximal ideals, boundaries
46J25 Representations
46J30 Subalgebras
46J35 Structure, classification
46J99 None of the above, but in this section

46Kxx Rings and algebras with an involution
46K05 General theory
46K10 Representations
46K15 Hilbert algebras
46K99 None of the above, but in this section

46Lxx C^*-algebras and von Neumann (W^*-) algebras [See also 22D25.]
46L05 C^*-algebras, general theory
46L10 von Neumann algebras, general theory
46L30 States
46L35 Classifications, factors
46L40 Automorphisms
46L45 Decomposition theory
46L50 Noncommutative integration, noncommutative probability
46L55 Noncommutative dynamical systems [See also 28Dxx.]
46L60 Applications to physics
46L99 None of the above, but in this section

46Mxx Categorical methods [See also 18–XX.]
46M05 Tensor products
46M10 Projective and injective objects
46M15 Functors
46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 55Rxx.]
46M35 Abstract interpolation of topological vector spaces
46M40 Inductive and projective limits [See also 46A12.]
46M99 None of the above, but in this section

46N05 Miscellaneous applications of functional analysis

46P05 Functional analysis over fields other than R or C; non-Archimedean functional analysis [See also 12J25, 32E27.]

47–XX OPERATOR THEORY

47–01 Elementary exposition, textbooks
47–02 Advanced exposition (research surveys, monographs, etc.)
47–03 Historical (must also be assigned at least one classification number from Section 01)
47–04 Explicit machine computation and programs (not the theory of computation or programming)
47–06 Proceedings, conferences, etc.

47Axxx Single linear operators: general theory
47A05 General (adjoints, conjugates, products, inverses, domains, ranges, etc.)
47A10 Spectrum, resolvent
47A12 Numerical range
47A15 Invariant subspaces
47A20 Dilations, extensions, compressions
47A25 Spectral sets
47A30 Norms (inequalities, more than one norm, etc.)
47A35 Ergodic theory [See also 28Dxx.]
47A40 Scattering theory [See also 34B25, 35P25, 47Dxx.]
47A45 Canonical models for contractions and nonselfadjoint operators
47A50 Equations involving linear operators, with vector unknowns
47A53 Fredholm operators
47A55 Perturbation theory
47A60 Functional calculus
47A62 Equations involving linear operators, with operator unknowns
47A65 Structure theory
47A66 (Non)quasitriangular, (non)quasidiagonal operators
47A67 Representation theory
47A68 Factorization theory
47A70 Eigenfunction expansions, rigged Hilbert spaces; eigenvalue problems in general [See also 49Gxx.]
47A99 None of the above, but in this section

47Bxx Single linear operators: special classes of operators
47B05 Compact operators, Riesz operators
47B10 Hilbert-Schmidt operators, trace class operators, nuclear operators, p-summing operators, etc.
47B15 Hermitian and normal operators (spectral measures, functional calculus, etc.)
47B20 Subnormal operators, hyponormal operators, etc.
47B25 Symmetric and selfadjoint operators (unbounded)
47B35 Toeplitz operators, Wiener-Hopf operators [See also 45P05, 47G05 for other integral operators.]
47B37 Operators on special spaces (weighted shifts, operators on sequence spaces, etc.)
47B38 Operators on function spaces
47B39 Difference operators [See also 39A70.]
47B40 Spectral operators, decomposable operators, etc.
47B44 Accretive operators, dissipative operators, etc.

47B47 Commutators, derivations
47B50 Operators on a space with an indefinite metric
47B55 Operators on ordered spaces
47B99 None of the above, but in this section

47Cxx Single linear operators as elements of algebraic systems
47C05 Operators in algebras
47C10 Operators in *-algebras
47C15 Operators in C^*- or von Neumann algebras
47C99 None of the above, but in this section

47Dxx Algebraic systems of linear operators [See also 46Lxx.]
47D05 Semigroups of operators {For nonlinear operators, see 47H20; see also 20M20.}
47D07 Markov semigroups {For Markov processes, see 60Jxx.}
47D10 Groups of operators
47D15 Linear spaces of operators
47D20 Convex sets and cones of operators
47D25 Operator algebras and ideals, on Hilbert space
47D30 Operator algebras and ideals, on Banach spaces and other linear topological spaces
47D35 Dual spaces of operator algebras and topological groups
47D40 Algebras of unbounded operators
47D45 Applications to physics
47D99 None of the above, but in this section

47E05 Ordinary differential operators [See also 34B25, 58Fxx.]

47F05 Partial differential operators [See also 35Pxx, 58Gxx.]

47G05 Integral, integro-differential, and pseudodifferential operators [See also 35Sxx, 45P05, 58Gxx.]

47Hxx Nonlinear operators {For global and geometric aspects, see 58–XX, especially 58Cxx.}
47H05 Monotone operators
47H06 Accretive operators, dissipative operators, etc.
47H07 Monotone and positive operators on ordered Banach spaces or other ordered topological vector spaces
47H09 Nonexpansive mappings, ultimately compact mappings, A-proper mappings, K-set contractions, etc.
47H10 Fixed-point theorems [See also 34C29, 54H25, 55M20, 58C30.]
47H12 Spectral theory of nonlinear operators
47H15 Equations involving nonlinear operators [See also 58E07 for abstract bifurcation theory.]
47H17 Methods for solving equations involving nonlinear operators {For numerical analysis, see 65J15.}
47H20 Semigroups of nonlinear operators [See also 58D07.]
47H99 None of the above, but in this section

49–XX CALCULUS OF VARIATIONS AND OPTIMAL CONTROL; OPTIMIZATION [See also 34H05, 65Kxx, 90Cxx, 93–XX.]

49–01 Elementary exposition, textbooks
49–02 Advanced exposition (research surveys, monographs, etc.)
49–03 Historical (must also be assigned at least one classification number from Section 01)
49–04 Explicit machine computation and programs (not the theory of computation or programming)
49–06 Proceedings, conferences, etc.

49Axx Existence theory for optimal solutions
49A05 Free problems in one independent variable
49A10 Problems involving ordinary differential equations, optimal control
49A21 Free problems in two or more independent variables
49A22 Problems involving partial differential equations, optimal control
49A27 Problems in abstract spaces
49A29 Variational inequalities
49A34 Problems involving functional relations other than differential equations
49A36 Optimal solutions belonging to restricted classes (bang-bang controls, etc.)
49A40 Minimax problems
49A45 Game theory; pursuit and evasion [See also 90Dxx.]
49A50 Topology of solutions, weak and strong minima, semicontinuity, convexity, orientor fields
49A51 Fréchet and Gâteaux differentiability
49A55 Duality theory
49A60 Optimal stochastic control [See also 93Exx.]
49A99 None of the above, but in this section

49Bxx Necessary conditions and sufficient conditions for optimality
49B05 Free problems in one independent variable
49B10 Problems involving ordinary differential equations, optimal control
49B21 Free problems in two or more independent variables
49B22 Problems involving partial differential equations, optimal control
49B27 Problems in abstract spaces
49B34 Problems involving functional relations other than differential equations
49B36 Optimal solutions belonging to restricted classes
49B40 Minimax problems
49B50 Sensitivity of optimal solutions in the presence of perturbations
49B60 Optimal stochastic control [See also 93Exx.]
49B99 None of the above, but in this section

49Cxx Carathéodory, Hamilton-Jacobi theories, including dynamic programming [See also 90C39.]
49C05 Free problems and problems involving ordinary differential equations
49C10 Free problems and problems involving partial differential equations
49C15 Problems in abstract spaces or involving functional relations other than differential equations
49C20 Dynamic programming method
49C99 None of the above, but in this section

49Dxx Methods of successive approximations {For discrete problems, see 90Cxx; see also 65Kxx.}
49D05 Methods based on necessary conditions
49D07 Gradient methods
49D10 Methods of steepest descent type
49D15 Methods of Newton-Raphson, Galerkin and Ritz types
49D20 Methods of relaxation type
49D25 Finite difference methods
49D27 Decomposition methods
49D29 Multiplier methods
49D30 Other methods, not based on necessary conditions (penalty function, etc.)
49D35 Methods of linear programming type
49D37 Nonlinear programming
49D39 Semi-infinite programming
49D40 Methods of quadratic programming type
49D45 Methods of convex programming type
49D49 Geometric programming
49D50 Periodic optimization
49D99 None of the above, but in this section

49Exx Controllability and geometry of control problems
49E05 General dependence on controls
49E10 Orientor fields (contingency equations)
49E15 Attainable sets, controllability
49E20 Interrelations between stability problems and optimization problems
49E25 Effect of perturbations on controllability
49E30 Relations between controllability and optimal solutions
49E99 None of the above, but in this section

49Fxx Manifolds [See also 58Exx.]
49F05 Exterior differential forms, invariant integrals (Cartan theory) [See mainly 58A15.]
49F10 Minimal surfaces [See mainly 53A10, also 58E12.]
49F15 Morse theory in Hilbert and other spaces [See also 57R27, 58Exx.]
49F20 Geometric measure and integration theory, integral and normal currents, flat chains and cochains, varifolds [See also 28A75, 32C30, 58A25, 58C35.]
49F22 Existence and structure of solutions to variational problems in geometric measure-theoretic setting

49F25 Surface area; Weierstrass and Burkill integrals, subadditive set functions
49F99 None of the above, but in this section

49Gxx Variational methods for eigenvalues [See also 47A70.]
49G05 Variational approach to eigenvalues
49G10 Rayleigh-Ritz methods
49G15 Weinstein and Aronszajn methods, intermediate problems
49G20 Linear operators in Hilbert spaces
49G99 None of the above, but in this section

49H05 Variational principles of physics [See also 70–XX, 81–XX.]

51–XX GEOMETRY {For algebraic geometry, see 14–XX.}

51–01 Elementary exposition, textbooks
51–02 Advanced exposition (research surveys, monographs, etc.)
51–03 Historical (must also be assigned at least one classification number from Section 01)
51–04 Explicit machine computation and programs (not the theory of computation or programming)
51–06 Proceedings, conferences, etc.

51Axx Linear incidence geometry
51A05 General theory and projective geometries
51A10 Homomorphism, automorphism and dualities
51A15 Structures with parallelism
51A20 Configuration theorems
51A25 Algebraization [See also 12Kxx, 20N10.]
51A30 Desarguesian and Pappian geometries
51A35 Non-Desarguesian affine and projective planes
51A40 Translation planes and spreads
51A45 Incidence structures imbeddable into projective geometries
51A99 None of the above, but in this section

51Bxx Nonlinear incidence geometry
51B05 General theory
51B10 Möbius geometries
51B15 Laguerre geometries
51B20 Minkowski geometries
51B25 Lie geometries
51B99 None of the above, but in this section

51C05 Ring geometry (Hjelmslev, Barbilian, etc.)

51Dxx Geometric closure systems
51D05 Abstract (Maeda) geometries
51D10 Abstract geometries with exchange axiom
51D15 Abstract geometries with parallelism
51D20 Combinatorial geometries [See also 05B25.]
51D25 Lattices of subspaces [See also 05B35.]
51D30 Continuous geometries and related topics
51D99 None of the above, but in this section

51Exx Finite geometry
51E05 General block designs [See also 05B05.]
51E10 Steiner systems
51E15 Affine and projective planes
51E20 Combinatorial structures in finite projective spaces [See also 05Bxx.]
51E25 Finite nonlinear geometries
51E30 Other finite incidence structures [See also 05B30.]
51E99 None of the above, but in this section

51Fxx Metric geometry
51F05 Absolute planes
51F10 Absolute spaces
51F15 Reflection groups, reflection geometries [See also 20H10, 20H15.]
51F20 Congruence and orthogonality [See also 20H05.]
51F25 Orthogonal and unitary groups [See also 20H05.]
51F99 None of the above, but in this section

51G05 Ordered geometries (ordered incidence structures, etc.)

51Hxx Topological geometry
51H05 General theory
51H10 Topological linear incidence structures
51H15 Topological nonlinear incidence structures
51H20 Topological geometries on manifolds [See also 57–XX.]
51H25 Geometries with differentiable structure [See also 53Cxx, 53C70.]
51H30 Geometries with algebraic manifold structure [See also 14–XX.]
51H99 None of the above, but in this section

51Jxx Incidence groups
51J05 General theory
51J10 Projective incidence groups
51J15 Kinematic spaces
51J20 Representation by near-fields and near-algebras [See also 12K05, 16A76.]
51J99 None of the above, but in this section

51Kxx Distance geometry
51K05 General theory
51K10 Synthetic differential geometry
51K99 None of the above, but in this section

51Lxx Geometric order structures [See also 53C75.]
51L05 Geometry of orders of nondifferentiable curves
51L10 Directly differentiable curves
51L15 n-vertex theorems via direct methods
51L20 Geometry of orders of surfaces
51L99 None of the above, but in this section

51Mxx Real and complex geometry
51M05 Euclidean geometries
51M10 Hyperbolic and elliptic geometries
51M15 Geometric constructions
51M20 Polyhedra and polytopes; regular figures, division of spaces [See also 51F15.]
51M25 Length, area and volume [See also 26B15.]
51M30 Line geometries and their generalizations
51M35 Synthetic treatment of fundamental manifolds in projective geometries (Grassmannians, Veronesians and their generalizations) [See also 14M15.]
51M99 None of the above, but in this section

51Nxx Analytic and descriptive geometry
51N05 Descriptive geometry
51N10 Affine analytic geometry
51N15 Projective analytic geometry
51N20 Euclidean analytic geometry
51N25 Analytic geometry with other transformation groups
51N30 Geometry of classical groups [See also 20Gxx, 14Lxx.]
51N35 Questions of classical algebraic geometry [See also 14Nxx.]
51N99 None of the above, but in this section

52–XX CONVEX SETS AND RELATED GEOMETRIC TOPICS

52–01 Elementary exposition, textbooks
52–02 Advanced exposition (research surveys, monographs, etc.)
52–03 Historical (must also be assigned at least one classification number from Section 01)
52–04 Explicit machine computation and programs (not the theory of computation or programming)
52–06 Proceedings, conferences, etc.
52A01 Axiomatic and generalized convexity
52A05 Convex sets without dimension restrictions
52A07 Convex sets in topological vector spaces [See also 46A55.]
52A10 Convex sets in 2 dimensions
52A15 Convex sets in 3 dimensions
52A20 Convex sets in n dimensions
52A22 Random convex sets and integral geometry [See also 53C65, 60D05.]
52A25 Polyhedra and polytopes
52A30 Invariants of convex sets (star-shaped, (m,n)-convex, etc.)
52A35 Helly type theorems
52A37 Other problems of combinatorial geometry
52A40 Inequalities and extremum problems
52A43 Lattices and convex bodies [See also 10E05.]
52A45 Packing, covering, tiling [See also 05B40, 05B45, 10E30, 51–XX.]
52A50 Hilbert geometry [See also 51Kxx.]
52A55 Spherical and hyperbolic convexity
52A99 Miscellaneous topics

53–XX DIFFERENTIAL GEOMETRY {For differential topology, see 57Rxx. For foundational questions of differentiable manifolds, see 58Axx.}

53–01 Elementary exposition, textbooks
53–02 Advanced exposition (research surveys, monographs, etc.)
53–03 Historical (must also be assigned at least one classification number from Section 01)
53–04 Explicit machine computation and programs (not the theory of computation or programming)
53–06 Proceedings, conferences, etc.

53Axx Classical differential geometry

53A04 Curves in Euclidean space
53A05 Surfaces in Euclidean space
53A07 Higher-dimension and -codimension surfaces in Euclidean n-space
53A10 Minimal surfaces, surfaces with prescribed mean curvature [See also 49F10, 53C42.]
53A15 Affine differential geometry
53A17 Kinematics
53A20 Projective differential geometry
53A25 Differential line geometry
53A30 Conformal differential geometry
53A35 Non-Euclidean differential geometry
53A40 Other special differential geometries
53A45 Vector and tensor analysis
53A50 Spinor analysis
53A55 Differential invariants (local theory), geometric objects
53A60 Geometry of webs [See also 14C21, 20N05.]
53A99 None of the above, but in this section

53Bxx Local differential geometry

53B05 Linear and affine connections
53B10 Projective connections
53B15 Other connections
53B20 Local Riemannian geometry
53B21 Methods of Riemannian geometry
53B25 Local submanifolds [See also 53C40.]
53B30 Lorentz metrics, indefinite metrics
53B35 Hermitian and Kählerian structures [See also 32Cxx.]
53B40 Finsler spaces and generalizations (areal metrics)
53B50 Applications to physics
53B99 None of the above, but in this section

53Cxx Global differential geometry [See also 51H25, 58–XX; for related bundle theory, see 55Rxx, 57Rxx.]

53C05 Connections
53C10 G-structures
53C12 Foliations [See also 57R30, 57R32.]
53C15 Almost complex, contact, symplectic, almost product structures, etc.
53C20 Riemannian manifolds, including pinching [See also 31C12, 58B20.]
53C21 Methods of Riemannian geometry
53C22 Geodesics [See also 58E10.]
53C25 Special Riemannian manifolds (Einstein, Sasakian, etc.)
53C30 Homogeneous manifolds [See also 14M15, 14M17, 32M10, 57T15.]
53C35 Symmetric spaces [See also 32M15, 57T15.]
53C40 Submanifolds [See also 53B25.]
53C42 Immersions (minimal, prescribed curvature, tight, etc.) [See also 49F10, 53A10, 57R40, 57R42.]
53C45 Global surface theory (convex surfaces à la A. D. Aleksandrov)
53C50 Lorentz manifolds, manifolds with indefinite metrics
53C55 Hermitian and Kählerian manifolds [See also 32Cxx.]
53C60 Finsler spaces and generalizations (areal metrics) [See also 58B20.]
53C65 Integral geometry [See also 52A22, 60D05.]; differential forms, currents, etc. [See mainly 58Axx.]
53C70 Direct methods (G-spaces of Busemann, etc.)
53C75 Geometric orders, order geometry [See also 51Lxx.]
53C80 Applications to physics
53C99 None of the above, but in this section

54–XX GENERAL TOPOLOGY {For the topology of manifolds of all dimensions, see 57Nxx.}

54–01 Elementary exposition, textbooks
54–02 Advanced exposition (research surveys, monographs, etc.)
54–03 Historical (must also be assigned at least one classification number from Section 01)
54–04 Explicit machine computation and programs (not the theory of computation or programming)
54–06 Proceedings, conferences, etc.

54Axx Generalities

54A05 Topological spaces and generalizations (closure spaces, etc.)
54A10 Change of topology, comparison of topologies
54A15 Syntopogeneous structures
54A20 Convergence (general theory) and limits
54A25 Cardinality properties (discrete subsets, weight, etc.), ultrafilters, etc. [See also 03Exx, 04A30.]
54A35 Consistency and independence results [See also 03E35.]
54A40 Fuzzy topology [See also 03E72.]
54A99 None of the above, but in this section

54Bxx Basic constructions

54B05 Subspaces
54B10 Product spaces
54B15 Quotient spaces, decompositions
54B17 Adjunction spaces and similar constructions
54B20 Hyperspaces
54B25 Sums, inverse limits
54B30 Categorical methods [See also 18B30.]
54B35 Spectra
54B40 Presheaves and sheaves [See also 18F20.]
54B99 None of the above, but in this section

54Cxx Maps and general types of spaces defined by maps

54C05 Continuous maps
54C08 Connectivity maps, semicontinuous maps, etc.
54C10 Special maps: open, closed, perfect, almost open, light, etc.
54C15 Retraction
54C20 Extension
54C25 Imbedding
54C30 Real-valued functions [See also 26–XX.]
54C35 Function spaces [See also 58D15.]
54C40 $C(X)$; algebraic techniques (ideals, etc.) [See also 46J10.]
54C45 C- and C^*-imbedding
54C50 Zero sets, Baire sets and functions [See also 26A21.]
54C55 Absolute neighborhood extensor, absolute extensor, absolute neighborhood retract (ANR), absolute retract spaces (general properties) [See also 54F40, 55M15.]
54C56 Shape theory [See mainly 55P55, 57N25.]
54C60 Set-valued maps [See also 26E25, 28B20.]
54C65 Selections [See also 28B20.]
54C70 Entropy
54C99 None of the above, but in this section

54Dxx Fairly general properties

54D05 Connected and locally connected spaces (general aspects)
54D10 Separation axioms, $T_0 - T_3$
54D15 Higher separation axioms (completely regular, normal, perfectly or collectionwise normal, etc.)
54D18 Paracompactness, pointwise paracompactness, etc.
54D20 Covering properties: Lindelöf, (m,n)-compact, etc.
54D25 "P-minimal" and "P-closed" spaces
54D30 Compact spaces and generalizations
54D35 Compactifications, etc.
54D40 Remainders
54D45 Local compactness, σ-compactness
54D50 k-spaces
54D55 Sequential spaces
54D60 Realcompactness and realcompactification
54D99 None of the above, but in this section

54Exx Spaces with richer structures

54E05 Proximity structures and generalizations
54E10 p-maps
54E15 Uniform structures and generalizations
54E17 Nearness spaces
54E18 p-spaces, M-spaces, σ-spaces, etc.

54E20 Stratifiable spaces, cosmic spaces, etc.
54E25 Semimetric spaces
54E30 Moore spaces
54E35 Metric spaces, metrizability
54E40 Isometries, contractions, expansions
54E45 Compact (locally compact) metric spaces
54E50 Complete metric spaces
54E52 Completions, Baire category
54E55 Bitopologies
54E60 CW-complexes, triangulable spaces
54E65 Countability conditions, separability
54E99 None of the above, but in this section

54Fxx Special properties
54F05 Ordered topological spaces, partially ordered spaces [See also 06B30, 06F30.]
54F15 Continua and generalizations
54F20 Special types of continua
54F25 Peano spaces and generalizations
54F30 Cyclic elements
54F35 Higher dimensional local connectedness [See also 55Mxx, 55Nxx.]
54F40 Compact (locally compact) absolute neighborhood retracts
54F43 Shape theory [See mainly 55P55, 57N25.]
54F45 Dimension theory [See also 55M10.]
54F50 Spaces of dimension ≤ 1; curves, dendrites [See also 26A03.]
54F55 Unicoherence, multicoherence
54F60 Maps into S_n
54F62 Periodic maps
54F65 Topological characterizations of particular spaces
54F99 None of the above, but in this section

54Gxx Peculiar spaces
54G05 Extremally disconnected spaces, F-spaces, etc.
54G10 P-spaces
54G15 Pathological spaces
54G20 Counterexamples
54G99 None of the above, but in this section

54Hxx Connections with other structures, applications
54H05 Descriptive set theory (topological aspects of Borel, analytic, projective, etc. sets) [See also 03E15, 04A15, 26A21, 28A05.]
54H10 Topological representations of algebraic systems [See also 22–XX.]
54H12 Topological lattices, etc. [See also 06B30, 06F30.]
54H13 Topological fields, rings, etc. {For algebraic aspects, see 12Jxx, 13Jxx, 16A80.}
54H15 Transformation groups and semigroups [See also 20M20 22–XX, 57Sxx.]
54H20 Topological dynamics [See also 28Dxx, 34C35, 58Fxx.]
54H25 Fixed-point and coincidence theorems [See also 47H10, 55M20.]
54H99 None of the above, but in this section

54J05 Nonstandard topology [See also 03Hxx.]

55–XX ALGEBRAIC TOPOLOGY

55–01 Elementary exposition, textbooks
55–02 Advanced exposition (research surveys, monographs, etc.)
55–03 Historical (must also be assigned at least one classification number from Section 01)
55–04 Explicit machine computation and programs (not the theory of computation or programming)
55–06 Proceedings, conferences, etc.

55Mxx Classical topics {For the topology of Euclidean spaces and manifolds, see 57N05, 57N10, 57N15.}
55M05 Duality
55M10 Dimension theory [See also 54F45.]
55M15 Absolute neighborhood retracts [See also 54C55, 54F40.]
55M20 Fixed points and coincidences [See also 54H25.]
55M25 Degree, winding number
55M30 Ljusternik-Schnirelman (Šnirel'man) category of a space
55M35 Finite groups of transformations (including Smith theory) [See also 57S17.]
55M99 None of the above, but in this section

55Nxx Homology and cohomology theories [See also 57Txx.]
55N05 Čech types
55N07 Steenrod-Sitnikov homologies
55N10 Singular theory
55N15 K-theory {For algebraic K-theory, see 18F25.}
55N20 Generalized (extraordinary) homology and cohomology theories
55N22 Bordism and cobordism theories, formal group laws [See also 14L05, 57R75, 57R77, 57R85, 57R90.]
55N25 Homology with local coefficients, equivariant cohomology
55N30 Sheaf cohomology [See also 18F20, 32C35, 32L10.]
55N35 Other homology theories
55N40 Axioms for homology theory and uniqueness theorems
55N45 Products and intersections
55N99 None of the above, but in this section

55Pxx Homotopy theory {For simple homotopy type, see 57Q10.}
55P05 Homotopy extension properties, cofibrations
55P10 Homotopy equivalences
55P15 Classification of homotopy type
55P20 Eilenberg-Mac Lane spaces
55P25 Spanier-Whitehead duality
55P30 Eckmann-Hilton duality
55P35 Loop spaces
55P40 Suspensions
55P42 Stable homotopy theory, spectra
55P45 H-spaces and duals
55P47 Infinite loop spaces
55P50 Category and cocategory, etc.
55P55 Shape theory [See also 54C56, 54F43, 55Q07.]
55P60 Localization and completion
55P62 Rational homotopy theory
55P65 Homotopy functors
55P99 None of the above, but in this section

55Qxx Homotopy groups
55Q05 Homotopy groups, general; sets of homotopy classes
55Q07 Shape groups
55Q10 Stable homotopy groups
55Q15 Whitehead products and generalizations
55Q20 Homotopy groups of wedges, joins, and simple spaces
55Q25 Hopf invariants
55Q30 Homotopy groups of triads, n-ads
55Q35 Operations in homotopy groups
55Q40 Homotopy groups of spheres
55Q45 Stable homotopy of spheres
55Q50 The J-morphism
55Q52 Homotopy groups of special spaces
55Q55 Cohomotopy groups
55Q70 Homotopy groups of special types [See also 55N05, 55N07.]
55Q99 None of the above, but in this section

55Rxx Fiber spaces and bundles [See also 18F15, 32Lxx, 46M20, 57R20, 57R22, 57R25.]
55R05 Fiber spaces
55R10 Fiber bundles
55R15 Classification
55R20 Spectral sequences and homology of fiber spaces [See also 55Txx.]
55R25 Sphere bundles and vector space bundles
55R35 Classifying spaces of groups and H-spaces
55R40 Homology of classifying spaces, characteristic classes [See also 57Txx, 57R20.]
55R45 Homology and homotopy of BO and BU; Bott periodicity
55R50 Stable classes of vector space bundles, K-theory {For algebraic K-theory, see 18F25.}
55R55 Fiberings with singularities
55R60 Microbundles and block bundles [See also 57N55, 57Q50.]
55R65 Generalizations of fiber spaces and bundles
55R99 None of the above, but in this section

55Sxx Operations and obstructions
55S05 Primary cohomology operations
55S10 Steenrod algebra
55S12 Dyer-Lashof operations

55S15 Symmetric products, cyclic products
55S20 Secondary and higher cohomology operations
55S25 K-theory operations and generalized cohomology operations
55S30 Massey products
55S35 Obstruction theory
55S36 Extension and compression of mappings
55S37 Classification of mappings
55S40 Sectioning fiber spaces and bundles
55S45 Postnikov systems, k-invariants
55S99 None of the above, but in this section

55Txx Spectral sequences [See also 18G40, 55P20.]
55T05 General
55T10 Serre spectral sequences
55T15 Adams spectral sequences
55T20 Eilenberg-Moore spectral sequences [See also 57T35.]
55T25 Generalized cohomology
55T99 None of the above, but in this section

55Uxx Applied homological algebra and category theory [See also 18Gxx.]
55U05 Abstract complexes
55U10 Semisimplicial complexes
55U15 Chain complexes
55U20 Universal coefficient theorems, Bockstein operator
55U25 Homology of a product, Künneth formula
55U30 Duality
55U35 Abstract homotopy theory
55U40 Topological categories
55U99 None of the above, but in this section

57–XX MANIFOLDS AND CELL COMPLEXES {For complex manifolds, see 32C10.}

57–01 Elementary exposition, textbooks
57–02 Advanced exposition (research surveys, monographs, etc.)
57–03 Historical (must also be assigned at least one classification number from Section 01)
57–04 Explicit machine computation and programs (not the theory of computation or programming)
57–06 Proceedings, conferences, etc.

57Mxx Low-dimensional topology (old 55Axx)
57M05 Fundamental group, presentations, free differential calculus
57M10 Covering spaces
57M12 Special coverings, e.g. branched
57M15 Relations with graph theory [See also 05Cxx.]
57M20 Two-dimensional complexes
57M25 Knots and links in S^3 {For higher dimensions, see 57Q45.}
57M30 Wild knots and surfaces, etc., wild imbeddings
57M35 Dehn's Lemma, sphere theorem, loop theorem, asphericity
57M40 Characterizations of E^3 and S^3 (Poincaré conjecture) [See also 57N12.]
57M99 None of the above, but in this section

57Nxx Topological manifolds
57N05 Topology of E^2, 2-manifolds
57N10 Topology of general 3-manifolds [See also 57Mxx.]
57N12 Topology of E^3 and S^3 [See also 57M40.]
57N13 Topology of E^4, 4-manifolds [See also 14Jxx, 32Jxx.]
57N15 Topology of E^n, n-manifolds $(4<n<\infty)$
57N17 Topology of topological vector spaces
57N20 Topology of infinite-dimensional manifolds [See also 58Bxx.]
57N25 Shapes [See also 54C56, 54F43, 55P55, 55Q07.]
57N30 Engulfing
57N35 Imbeddings and immersions
57N37 Isotopy and pseudo-isotopy
57N40 Neighborhoods of submanifolds
57N45 Flatness and tameness
57N50 $S^{n-1} \subset E^n$, Schoenflies problem
57N55 Microbundles and block bundles [See also 55R60, 57Q50.]
57N60 Cellularity
57N65 Algebraic topology of manifolds
57N70 Cobordism and concordance
57N75 General position and transversality
57N80 Stratifications
57N99 None of the above, but in this section

57Pxx Generalized manifolds [See also 18F15.]
57P05 Local properties
57P10 Poincaré duality spaces
57P99 None of the above, but in this section

57Qxx PL-topology
57Q05 The general topology of complexes
57Q10 Simple homotopy type, Whitehead torsion, Reidemeister-Franz torsion, etc.
57Q12 Wall finiteness obstruction for CW-complexes
57Q15 Triangulating manifolds
57Q20 Cobordism
57Q25 Comparison of PL-structures: classification, Hauptvermutung
57Q30 Engulfing
57Q35 Imbeddings and immersions
57Q37 Isotopy
57Q40 Regular neighborhoods
57Q45 Knots and links (in high dimensions) {For the low-dimensional case, see 57M25.}
57Q50 Microbundles and block bundles [See also 55R60, 57N55.]
57Q55 Approximations
57Q60 Cobordism and concordance
57Q65 General position and transversality
57Q99 None of the above, but in this section

57Rxx Differential topology {For foundational questions of differentiable manifolds, see 58Axx; for infinite-dimensional manifolds, see 58Bxx.}
57R05 Triangulating
57R10 Smoothing
57R12 Smooth approximations
57R15 Specialized structures on manifolds (spin manifolds, frame manifolds, etc.)
57R19 Algebraic topology of manifolds
57R20 Characteristic classes and numbers
57R22 Topology of vector bundles and fiber bundles [See also 55Rxx.]
57R25 Vector fields, frame fields, etc.
57R27 Controllability of vector fields on C^∞ and real-analytic manifolds [See also 49E15, 49F15.]
57R30 Foliations; geometric theory
57R32 Classifying spaces for foliations; Gel'fand-Fuks cohomology
57R35 Differentiable mappings
57R40 Imbeddings
57R42 Immersions
57R45 Singularities of differentiable mappings
57R50 Diffeomorphisms
57R52 Isotopy
57R55 Differentiable structures
57R60 Homotopy spheres, Poincaré conjecture
57R65 Surgery and handlebodies
57R67 Surgery obstructions, Wall groups [See also 18F25.]
57R70 Critical points and critical submanifolds
57R75 O- and SO-cobordism
57R77 Complex cobordism (U- and SU-cobordism) [See also 55N22.]
57R80 h- and s-cobordism
57R85 Equivariant cobordism
57R90 Other types of cobordism [See 55N22.]
57R95 Realizing cycles by submanifolds
57R99 None of the above, but in this section

57Sxx Topological transformation groups [See also 20F34, 22–XX, 54H15, 58D05.]
57S05 Topological properties of groups of homeomorphisms
57S10 Compact groups of homeomorphisms
57S15 Compact Lie groups of differentiable transformations
57S17 Finite transformation groups
57S20 Noncompact Lie groups of transformations
57S25 Groups acting on specific manifolds
57S30 Discontinuous groups of transformations
57S99 None of the above, but in this section

57Txx Homology and homotopy of topological groups and related structures
- 57T05 Hopf algebras [See also 16A24.]
- 57T10 Homology and cohomology of Lie groups
- 57T15 Homology and cohomology of homogeneous spaces of Lie groups
- 57T20 Homotopy groups of topological groups and homogeneous spaces
- 57T25 Homology and cohomology of H-spaces
- 57T30 Bar and cobar constructions [See also 18G55, 55Uxx.]
- 57T35 Applications of Eilenberg-Moore spectral sequences [See also 55R20, 55T20.]
- 57T99 None of the above, but in this section

58–XX GLOBAL ANALYSIS, ANALYSIS ON MANIFOLDS [See also 32Cxx, 32Fxx, 46–XX, 47Hxx, 53Cxx; for geometric integration theory, see 49F20, 49F22.]
- 58–01 Elementary exposition, textbooks
- 58–02 Advanced exposition (research surveys, monographs, etc.)
- 58–03 Historical (must also be assigned at least one classification number from Section 01)
- 58–04 Explicit machine computation and programs (not the theory of computation or programming)
- 58–06 Proceedings, conferences, etc.

58Axx General theory of differentiable manifolds
- 58A05 Differentiable manifolds, foundations
- 58A07 Real-analytic and Nash manifolds [See also 32C05.]
- 58A10 Differential forms
- 58A12 de Rham theory [See also 14Fxx.]
- 58A14 Hodge theory [See also 14C30, 14Fxx, 32Cxx.]
- 58A15 Exterior differential systems (Cartan theory)
- 58A17 Pfaffian systems
- 58A20 Jets
- 58A25 Currents
- 58A30 Vector distributions (subbundles of the tangent bundles)
- 58A35 Stratified sets [See also 32Bxx, 58Cxx.]
- 58A40 Differential spaces
- 58A99 None of the above, but in this section

58Bxx Infinite-dimensional manifolds
- 58B05 Homotopy and topological questions
- 58B10 Differentiability questions
- 58B12 Questions of holomorphy [See also 32–XX, 46G20.]
- 58B15 Fredholm structures [See also 47A53.]
- 58B20 Riemannian, Finsler and other geometric structures [See also 53C20, 53C60.]
- 58B25 Group structures and generalizations on infinite-dimensional manifolds [See also 22E65, 58D05.]
- 58B99 None of the above, but in this section

58Cxx Calculus on manifolds; nonlinear operators [See also 47Hxx.]
- 58C05 Real-valued functions
- 58C06 Set valued and function-space valued mappings
- 58C07 Continuity properties of mappings
- 58C10 Holomorphic maps [See also 32–XX.]
- 58C15 Implicit function theorems; global Newton methods
- 58C20 Differentiation theory (Gâteaux, Fréchet, etc.) [See also 26Exx, 46Gxx.]
- 58C25 Differentiable maps
- 58C27 Singularities of differentiable maps [See also 14B05, 14E15, 32Bxx, 32C40, 32C45.]
- 58C28 Catastrophes [See also 57R70, 58Exx.]
- 58C30 Fixed point theorems [See also 47H10.]
- 58C35 Integration on manifolds; measures on manifolds [See also 28Cxx.]
- 58C40 Spectral theory; eigenvalue problems
- 58C99 None of the above, but in this section

58Dxx Spaces and manifolds of mappings (including nonlinear versions of 46Exx)
- 58D05 Groups of diffeomorphisms and homeomorphisms as manifolds [See also 22E65, 57Q05.]
- 58D07 Groups and semigroups of nonlinear operators [See also 17B65, 47Dxx, 47H20.]
- 58D10 Spaces of imbeddings and immersions
- 58D15 Manifolds of mappings [See also 54C35.]
- 58D17 Manifolds of metrics (esp. Riemannian)
- 58D20 Measures (Gaussian, cylindrical, etc.) on manifolds of maps [See 28Cxx.]
- 58D25 Equations in function spaces; evolution equations [See also 34Gxx, 35K22, 35R15.]
- 58D30 Applications (in quantum mechanics (Feynman path integrals), relativity, fluid dynamics, etc.)
- 58D99 None of the above, but in this section

58Exx Variational problems in infinite-dimensional spaces
- 58E05 Abstract critical point theory (Morse theory, Ljusternik-Schnirelman (Šnirel'man) theory, etc.)
- 58E07 Abstract bifurcation theory
- 58E10 Applications to the theory of geodesics (problems in one independent variable)
- 58E11 Critical metrics
- 58E12 Applications to minimal surfaces (problems in two independent variables)
- 58E15 Application to extremal problems in several variables
- 58E17 Pareto optimality, etc., applications to economics
- 58E20 Harmonic maps
- 58E25 Applications to control theory (optimal and nonoptimal)
- 58E30 Variational principles
- 58E35 Variational inequalities (global problems)
- 58E99 None of the above, but in this section

58Fxx Ordinary differential equations on manifolds; dynamical systems {For abstract and topological dynamics, see also 28D10, 34C35, 34C40, 54H20.}
- 58F05 Hamiltonian and Lagrangian systems; symplectic geometry [See also 70Hxx.]
- 58F06 Geometric quantization (applications of representation theory)
- 58F07 Completely integrable systems (including systems with an infinite number of degrees of freedom)
- 58F09 Morse-Smale systems
- 58F10 Stability theory
- 58F11 Ergodic theory; invariant measures [See also 28Dxx.]
- 58F12 Structure of attractors (and repellors)
- 58F13 Strange attractors; chaos and other pathologies
- 58F14 Bifurcation theory and singularities
- 58F15 Hyperbolic structures (expanding maps, Anosov systems, etc.)
- 58F17 Geodesic flows
- 58F18 Relations with foliations
- 58F19 Eigenvalue and spectral problems
- 58F20 Periodic points and zeta functions
- 58F21 Limit cycles, etc.
- 58F22 Periodic solutions
- 58F25 Flows
- 58F27 Quasiperiodic flows
- 58F30 Perturbations
- 58F35 Invariance properties
- 58F40 Applications
- 58F99 None of the above, but in this section

58Gxx Partial differential equations on manifolds; differential operators [See also 35–XX.]
- 58G05 Differential complexes [See also 35Nxx.]; elliptic complexes
- 58G07 Relations with hyperfunctions
- 58G10 Index theory and fixed point theorems
- 58G11 Heat and other parabolic equation methods
- 58G12 Exotic index theories [See also 46L05, 46L10, 46M20.]
- 58G15 Pseudodifferential and Fourier integral operators on manifolds
- 58G16 Hyperbolic equations
- 58G17 Propagation of singularities; initial value problems
- 58G20 Boundary value problems
- 58G25 Spectral problems; spectral geometry; scattering theory
- 58G30 Relations with special manifold structures (Riemannian, Finsler, etc.)
- 58G32 Diffusion processes and stochastic analysis on manifolds
- 58G35 Invariance properties
- 58G40 Applications
- 58G99 None of the above, but in this section

58Hxx Pseudogroups and general structures on manifolds
58H05 Pseudogroups [See also 22E65.]
58H10 Cohomology of classifying spaces for pseudogroup structures (Spencer, Gel'fand-Fuks, etc.)
58H15 Deformations of structures [See also 32Gxx, 58G05.]
58H99 None of the above, but in this section

60–XX PROBABILITY THEORY AND STOCHASTIC PROCESSES {For additional applications, see 10Kxx, 62–XX, 90–XX, 92–XX, 93–XX, 94–XX. For numerical results, see 65U05.}
60–01 Elementary exposition, textbooks
60–02 Advanced exposition (research surveys, monographs, etc.)
60–03 Historical (must also be assigned at least one classification number from Section 01)
60–04 Explicit machine computation and programs (not the theory of computation or programming)
60–06 Proceedings, conferences, etc.

60Axx Foundations of probability theory
60A05 Axioms; other general questions
60A10 Probabilistic measure theory {For ergodic theory, see 28Dxx and 60Fxx.}
60A99 None of the above, but in this section

60Bxx Probability theory on algebraic and topological structures
60B05 Probability measures on topological spaces
60B10 Convergence of probability measures
60B11 Probability theory on linear topological spaces [See also 28C20.]
60B12 Limit theorems for vector-valued random variables (infinite-dimensional case)
60B15 Probability measures on groups, Fourier transforms, factorization
60B99 None of the above, but in this section

60C05 Combinatorial probability

60D05 Geometric probability, stochastic geometry, random sets [See also 52A22, 53C65.]

60Exx Distribution theory [See also 62Exx, 62Hxx.]
60E05 Distributions: general theory
60E07 Infinitely divisible distributions; stable distributions
60E10 Characteristic functions; other transforms
60E15 Inequalities (Čebyšev, Kolmogorov, etc.)
60E99 None of the above, but in this section

60Fxx Limit theorems [See also 28Dxx, 60B12.]
60F05 Central limit and other weak theorems
60F10 Large deviations
60F15 Strong theorems
60F17 Functional limit theorems; invariance theorems
60F20 Zero-one laws
60F25 L^p-limit theorems
60F99 None of the above, but in this section

60Gxx Stochastic processes
60G05 Foundations of stochastic processes
60G07 General theory of processes
60G10 Stationary processes
60G12 General second-order processes
60G15 Gaussian processes
60G17 Sample path properties
60G20 Generalized stochastic processes
60G25 Prediction theory [See also 62M20.]
60G30 Continuity and singularity of induced measures
60G35 Applications (signal detection, filtering, etc.) [See also 62M20, 94Axx.]
60G40 Stopping times; optimal stopping problems; gambling theory [See also 62L15.]
60G42 Martingales with discrete parameter
60G44 Martingales with continuous parameter
60G46 Martingales and classical analysis
60G48 Generalizations of martingales
60G50 Sums of independent random variables
60G55 Point processes
60G57 Random measures
60G60 Random fields
60G99 None of the above, but in this section

60Hxx Stochastic analysis [See also 58G32.]
60H05 Stochastic integrals
60H10 Stochastic ordinary differential equations [See also 34F05.]
60H15 Stochastic partial differential equations [See also 35R60.]
60H20 Stochastic integral equations
60H25 Random operators and equations
60H99 None of the above, but in this section

60Jxx Markov processes
60J05 Markov processes with discrete parameter
60J10 Markov chains with discrete parameter
60J15 Random walk
60J20 Applications of discrete Markov processes (social mobility, learning theory, industrial processes, etc.)
60J25 Markov processes with continuous parameter
60J27 Markov chains with continuous parameter
60J30 Processes with independent increments
60J35 Transition functions, generators and resolvents [See also 47D05, 47D07.]
60J40 Hunt processes
60J45 Probabilistic potential theory [See also 31–XX.]
60J50 Boundary theory
60J55 Local time and additive functionals
60J57 Multiplicative functionals
60J60 Diffusion processes [See also 58G32.]
60J65 Brownian motion [See also 58G32.]
60J70 Applications of diffusion theory (population genetics, absorption problems, etc.)
60J75 Jump processes
60J80 Branching processes (Galton-Watson, birth-and-death, etc.)
60J85 Applications of branching processes [See also 60K30, 92A10, 92A15.]
60J99 None of the above, but in this section

60Kxx Special processes
60K05 Renewal theory
60K10 Applications (reliability, demand theory, etc.)
60K15 Markov renewal processes, semi-Markov processes
60K20 Applications of Markov renewal processes (reliability, queueing networks, etc.) [See also 90B22, 90B25.]
60K25 Queueing theory [See also 68C15, 90B22.]
60K30 Applications (congestion, allocation, storage, traffic, etc.) [See also 60J80.]
60K35 Interacting random processes; statistical mechanics type models; percolation theory
60K99 None of the above, but in this section

62–XX STATISTICS {For numerical methods, see 65U05.}
62–01 Elementary exposition, textbooks
62–02 Advanced exposition (research surveys, monographs, etc.)
62–03 Historical (must also be assigned at least one classification number from Section 01)
62–04 Explicit machine computation and programs (not the theory of computation or programming)
62–06 Proceedings, conferences, etc.
62–07 Data analysis

62Axx Foundations
62A05 Invariance and group considerations
62A10 The likelihood approach
62A15 The Bayesian approach
62A20 The classical approach
62A25 The structural approach
62A30 The fiducial approach
62A99 None of the above, but in this section

62Bxx Sufficiency
62B05 Sufficient statistics and fields
62B10 Statistical information theory
62B15 Comparison of experiments
62B20 Measure-theoretic results, etc.
62B99 None of the above, but in this section

62Cxx **Decision theory [See also 90A05; for game theory, see 90Dxx.]**
62C05 General considerations
62C07 Complete class results
62C10 Bayesian problems; characterization of Bayes procedures
62C12 Empirical decision procedures
62C15 Admissibility
62C20 Minimax procedures
62C25 Compound decision problems
62C99 None of the above, but in this section

62D05 **Sampling theory, sample surveys**

62Exx **Distribution theory [See also 60Exx.]**
62E10 Characterization and structure theory
62E15 Exact distribution theory
62E20 Asymptotic distribution theory
62E25 Monte Carlo studies
62E30 Formal computational methods (polykays, etc.)
62E99 None of the above, but in this section

62Fxx **Parametric inference**
62F03 Hypothesis testing
62F04 Small sample properties of tests
62F05 Asymptotic properties of tests
62F07 Ranking and selection
62F10 Point estimation
62F11 Small sample properties of estimators
62F12 Asymptotic properties of estimators
62F15 Bayesian inference
62F25 Tolerance and confidence regions
62F35 Robustness and adaptive procedures
62F99 None of the above, but in this section

62Gxx **Nonparametric inference**
62G05 Estimation
62G10 Hypothesis testing
62G15 Tolerance and confidence regions
62G20 Asymptotic efficiency
62G25 Quick and easy methods
62G30 Order statistics; empirical distribution functions
62G99 None of the above, but in this section

62Hxx **Multivariate analysis [See also 60Exx.]**
62H05 Characterization and structure theory
62H10 Distribution of statistics
62H12 Estimation
62H15 Hypothesis testing
62H17 Contingency
62H20 Measures of association (correlation, canonical correlation, etc.)
62H25 Factor analysis and principal components
62H30 Classification and discrimination; cluster analysis [See also 68Gxx.]
62H99 None of the above, but in this section

62Jxx **Regression and correlation**
62J02 General nonlinear regression
62J05 Linear regression
62J07 Ridge regression; James-Stein estimators
62J10 Analysis of variance and covariance
62J15 Paired and multiple comparisons
62J99 None of the above, but in this section

62Kxx **Experimental design [See also 05Bxx.]**
62K05 Optimal designs
62K10 Block designs
62K15 Factorial designs
62K99 None of the above, but in this section

62Lxx **Sequential methods**
62L05 Sequential design
62L10 Sequential analysis
62L12 Sequential estimation
62L15 Optimal stopping [See also 60G40.]
62L20 Stochastic approximation
62L99 None of the above, but in this section

62Mxx **Inference from stochastic processes**
62M02 Markov processes: hypothesis testing
62M05 Markov processes: estimation
62M07 Non-Markovian processes: hypothesis testing
62M09 Non-Markovian processes: estimation
62M10 Time series, auto-correlation, regression, etc. [See also 90A20.]
62M15 Spectral analysis of time series
62M20 Prediction [See also 60G25.]; filtering [See also 60G35, 93E10, 93E11.]
62M99 None of the above, but in this section

62Nxx **Engineering statistics**
62N05 Reliability and life testing [See also 90B25.]
62N10 Quality control [See also 90Bxx.]
62N99 None of the above, but in this section

62Pxx **Applications [See also 82–XX, 90–XX, 92–XX.]**
62P05 Actuarial mathematics
62P10 Biometrics
62P15 Psychometrics
62P20 Econometrics [See also 90Axx.]
62P25 Sociometrics
62P99 None of the above, but in this section

62Q05 **Statistical tables**

65–XX NUMERICAL ANALYSIS

65–01 Elementary exposition, textbooks
65–02 Advanced exposition (research surveys, monographs, etc.)
65–03 Historical (must also be assigned at least one classification number from Section 01)
65–04 Explicit machine computation and programs (not the theory of computation or programming)
65–06 Proceedings, conferences, etc.

65A05 **Tables**

65Bxx **Acceleration of convergence**
65B05 Extrapolation to the limit, deferred corrections
65B10 Summation of series
65B15 Euler-Maclaurin formula
65B20 Poisson formula, etc.
65B99 None of the above, but in this section

65Cxx **Numerical simulation {For theoretical aspects, see 68Jxx.}**
65C05 Monte Carlo methods
65C10 Random number generation
65C20 Models, numerical methods
65C99 None of the above, but in this section

65Dxx **Numerical approximation {Primarily algorithms; for theory, see 41–XX.}**
65D05 Interpolation
65D07 Splines
65D10 Smoothing, curve fitting
65D15 Algorithms for functional approximation
65D20 Computation of special functions, construction of tables
65D25 Numerical differentiation
65D30 Numerical integration
65D32 Quadrature and cubature formulas
65D99 None of the above, but in this section

65E05 **Numerical methods in complex analysis (potential theory, etc.) {For numerical methods in conformal mapping, see 30C30.}**

65Fxx **Numerical linear algebra**
65F05 Direct methods for linear systems and matrix inversion
65F10 Iterative methods for linear systems [See also 65N20.]
65F15 Eigenvalues, eigenvectors
65F20 Overdetermined systems, pseudoinverses
65F25 Orthogonalization
65F30 Other matrix algorithms
65F35 Matrix norms, conditioning, scaling [See also 15A12, 15A60.]
65F40 Determinants
65F99 None of the above, but in this section

65Gxx **Error analysis**
65G05 Roundoff error
65G10 Interval and finite arithmetic
65G99 None of the above, but in this section

65Hxx Nonlinear algebraic or transcendental equations
65H05 Single equations
65H10 Systems of equations
65H15 Eigenvalues, eigenvectors
65H99 None of the above, but in this section

65Jxx Numerical analysis in abstract spaces
65J05 General
65J10 Equations with linear operators (do not use 65Fxx)
65J15 Equations with nonlinear operators (do not use 65Hxx)
65J99 None of the above, but in this section

65Kxx Mathematical programming, optimization and variational techniques [See also 49Dxx, 90Cxx, 93–XX.]
65K05 Mathematical programming
65K10 Optimization and variational techniques
65K99 None of the above, but in this section

65Lxx Ordinary differential equations
65L05 Initial value problems
65L07 Numerical investigation of stability of solutions
65L10 Boundary value problems
65L15 Eigenvalue problems
65L20 Stability of numerical methods
65L50 Mesh generation and refinement
65L60 Finite elements, Rayleigh-Ritz and Galerkin methods, finite methods
65L99 None of the above, but in this section

65Mxx Partial differential equations, initial value problems
65M05 Derivation of finite difference approximations
65M10 Stability and convergence of difference methods
65M15 Error bounds
65M20 Method of lines
65M25 Method of characteristics
65M30 Improperly posed problems
65M50 Mesh generation and refinement
65M60 Finite elements, Rayleigh-Ritz and Galerkin methods, finite methods
65M99 None of the above, but in this section

65Nxx Partial differential equations, boundary value problems
65N05 Derivation of finite difference approximations
65N10 Stability and convergence of difference methods
65N15 Error bounds
65N20 Solution of difference equations [See also 65F10.]
65N25 Eigenvalue problems
65N30 Finite elements, Rayleigh-Ritz and Galerkin methods, finite methods
65N35 Collocation and related methods
65N40 Methods of lines
65N45 Method of contraction of the boundary
65N50 Mesh generation and refinement
65N99 None of the above, but in this section

65P05 Partial differential equations, miscellaneous problems

65Q05 Difference and functional equations, recurrence relations

65Rxx Integral equations, integral transforms [See also 45Lxx.]
65R10 Integral transforms
65R20 Integral equations
65R99 None of the above, but in this section

65S05 Graphical methods

65T05 Harmonic analysis and synthesis

65U05 Numerical methods in probability and statistics

65V05 Automated algorithms [See also 68C05.]

68–XX COMPUTER SCIENCE (including AUTOMATA) {For papers involving machine computations and programs in a specific mathematical area, see section –04 in that area.}

68–01 Elementary exposition, textbooks
68–02 Advanced exposition (research surveys, monographs, etc.)
68–03 Historical (must also be assigned at least one classification number from Section 01)
68–04 Explicit machine computation and programs (not the theory of computation or programming)
68–06 Proceedings, conferences, etc.

68A05 Computers and computer systems

68Bxx Software
68B05 General theory of programming
68B10 Analysis of programs (schemata, semantics, correctness, etc.)
68B15 Theory of data (filing, etc.)
68B20 Supervisory systems, processing (serial, parallel, multi, structured, time-sharing operating systems)
68B99 None of the above, but in this section

68Cxx Metatheory (excluding automata)
68C01 Formal systems
68C05 Algorithms [See also 03–XX, 65V05.]
68C15 Queueing, scheduling [See also 60K25.]
68C20 Symbolic computation, algebraic computation
68C25 Computational complexity and efficiency of algorithms
68C30 Computable functions, unsolvability
68C40 Turing machines, abstract processors [See also 03D10.]
68C99 None of the above, but in this section

68Dxx Automata [See also 03D05, 18B20, 68F10.]
68D05 General theory
68D15 Linear automata, sequential machines
68D20 Tessellation automata, iterative arrays, cellular structure
68D22 Lindenmayer systems, D0L- and D1L-systems, etc. [See also 68F10, 92A05.]
68D25 Stochastic and nondeterministic automata
68D27 Playing automata, learning automata [See also 90Dxx, 68Gxx.]
68D30 Algebraic theory of automata [See also 18B20, 20M35.]
68D35 Other types of automata
68D37 Decomposition theory
68D40 Reduction problems
68D45 Realizable functions and regular events
68D50 Experiments, state-assignments
68D90 Transition nets
68D99 None of the above, but in this section

68Exx Discrete mathematics
68E05 Sorting, searching
68E10 Graph theory [See also 05Cxx.]
68E99 None of the above, but in this section

68Fxx Linguistics [See also 03B65.]
68F05 Formal languages, grammars
68F10 Automata in connection with languages [See also 03D05, 18B20, 68Dxx.]
68F15 Stochastic models
68F20 Semantics
68F25 Parsing
68F30 Translation of natural languages
68F99 None of the above, but in this section

68Gxx Artificial intelligence [See also 62H30, 68D27.]
68G05 Learning and adaptive systems
68G10 Pattern recognition, speech recognition
68G15 Theorem proving [See also 03B35.]
68G20 Problem solving
68G99 None of the above, but in this section

68H05 Information retrieval

68Jxx Simulation [See also 65Cxx.]
68J05 Simulation (analog, hybrid, etc.)
68J10 Modeling
68J99 None of the above, but in this section

68K05 Miscellaneous applications of computers

70–XX MECHANICS OF PARTICLES AND SYSTEMS {For relativistic mechanics, see 83A05 and 83C10; for statistical mechanics, see 82–XX.}

70–01 Elementary exposition, textbooks
70–02 Advanced exposition (research surveys, monographs, etc.)
70–03 Historical (must also be assigned at least one classification number from Section 01)
70–04 Explicit machine computation and programs (not the theory of computation or programming)

70–05 Experimental papers
70–06 Proceedings, conferences, etc.
70A05 Axiomatics, foundations
70Bxx Kinematics [See also 53A17.]
70B05 Kinematics of a particle
70B10 Kinematics of a rigid body
70B15 Mechanisms and linkages
70B99 None of the above, but in this section
70Cxx Statics
70C05 Forces, fields
70C10 Potential energy
70C99 None of the above, but in this section
70Dxx Dynamics of a particle [See also 70Hxx.]
70D05 Newtonian dynamics
70D10 Lagrangian dynamics
70D99 None of the above, but in this section
70Exx Dynamics of rigid bodies
70E05 Motion of the gyroscope
70E10 Motion of projectiles and rockets
70E15 Motion of a general rigid body
70E20 Perturbation methods for Euler's equations
70E25 Poinsot method
70E99 None of the above, but in this section
70Fxx Dynamics of a system of particles, including celestial mechanics
70F05 Two-body problem
70F07 Three-body problem
70F10 *n*-body problem
70F15 Celestial mechanics
70F20 Holonomic systems
70F25 Nonholonomic systems
70F30 Impulsive motion
70F35 Collisions
70F99 None of the above, but in this section
70Gxx General representations of dynamical systems [See also 58F05.]
70G05 Riemannian geometry, tensorial methods [See also 53A45, 53A50, 53B20.]
70G10 Generalized coordinates
70G15 Space of events
70G20 Impulse-energy space
70G25 Configuration space
70G30 State space
70G35 Phase space
70G99 None of the above, but in this section
70Hxx Hamiltonian and Lagrangian mechanics [See also 58F05.]
70H05 Hamilton's equations
70H10 Liouville's theorem
70H15 Canonical transformations
70H20 Hamilton-Jacobi equations
70H25 Hamilton's principle
70H30 Other variational principles
70H35 Lagrange's equation of motion
70H99 None of the above, but in this section
70Jxx Linear vibration theory
70J05 Finite degree of freedom systems
70J10 Normal modes of vibrations
70J15 Conservative systems
70J20 Nonconservative systems
70J25 Stability
70J99 None of the above, but in this section
70Kxx Nonlinear motions [See also 34Cxx, 58Fxx.]
70K05 Phase plane analysis
70K10 Limit cycles
70K15 Ljapunov theorems
70K20 Stability
70K30 Nonlinear resonances
70K40 Forced motions
70K50 Transition to stochasticity [See also 58F13.]
70K99 None of the above, but in this section
70L05 Random vibrations [See also 93Exx.]
70Mxx Orbital mechanics
70M05 Satellite problems
70M10 Orbital stability
70M99 None of the above, but in this section
70N05 Exterior ballistics
70P05 Variable mass, rockets
70Q05 Control of mechanical systems [See also 49Exx, 90D25, 90D26, 93Cxx, 93Dxx.]

73–XX MECHANICS OF SOLIDS

73–01 Elementary exposition, textbooks
73–02 Advanced exposition (research surveys, monographs, etc.)
73–03 Historical (must also be assigned at least one classification number from Section 01)
73–04 Explicit machine computation and programs (not the theory of computation or programming)
73–05 Experimental papers
73–06 Proceedings, conferences, etc.
73A05 Axiomatics, foundations
73Bxx Continuum mechanics {For fluids, see 76Axx.}
73B05 Constitutive equations
73B10 Isotropic functionals
73B15 Rotational groups [See also 22Exx.]
73B20 Simple materials
73B25 Multipolar stress theory
73B30 Thermodynamics of solids [See also 73U05; for gases and fluids, see 80–XX.]
73B35 Random materials
73B99 None of the above, but in this section
73Cxx Elasticity {For the biharmonic equation, see 31A30, 31B30; for acoustics, see 76Q05.}
73C02 Classical linear elasticity
73C03 Complex variable techniques
73C05 Stress functions
73C10 Saint-Venant's principle
73C15 Uniqueness theorems
73C20 Strain energy methods
73C25 Thermal stress problems
73C30 Anisotropic bodies
73C35 Mixed boundary value problems [See also 45F05.]
73C40 Nonhomogeneous bodies and inclusions
73C45 Stress concentrations
73C50 Nonlinear elasticity
73C60 Variational methods [See also 35J85, 35K85, 35L85, 49A29.]
73C99 None of the above, but in this section
73Dxx Wave propagation in and vibrations of solids
73D05 Impact and explosion problems [See also 76L05.]
73D10 Integral transforms
73D15 Dilatational and shear waves
73D20 Surface waves
73D25 Wave diffraction and dispersion
73D30 Linear vibrations [See also 70Jxx.]
73D35 Nonlinear vibrations [See also 70Kxx.]
73D50 Inverse problems [See also 35Lxx, 35R30.]
73D70 Random waves
73D99 None of the above, but in this section
73Exx Plasticity
73E05 Yield criteria and flow rules
73E10 Method of successive approximations
73E15 Slip-line theory
73E20 Limit analysis
73E25 Creep
73E50 Time-dependent problems
73E99 None of the above, but in this section
73Fxx Viscoelasticity
73F05 Creep and relaxation functions
73F10 Correspondence principle
73F15 Time-dependent boundary value problems
73F20 Aging of materials
73F25 Environmental-dependent materials

73F99 None of the above, but in this section

73Gxx Finite deformations
73G05 Finite elasticity
73G10 Strain energy functions
73G15 Finite viscoelasticity
73G20 Metal forming problems
73G99 None of the above, but in this section

73Hxx Stability (linear and nonlinear)
73H05 Buckling
73H10 Dynamic stability
73H99 None of the above, but in this section

73Jxx Aero- and hydroelasticity
73J05 Interaction of aerodynamics and elasticity
73J06 Interaction of hydrodynamics and elasticity
73J10 Vibrations, flutter
73J15 Divergence
73J99 None of the above, but in this section

73Kxx Structural mechanics
73K03 Strings
73K05 Beams, columns, rods
73K10 Plates, discs
73K12 Vibrations of beams, plates, etc.
73K15 Membranes, shells
73K20 Composite structures and materials
73K25 Finite element methods
73K30 Other numerical methods
73K35 Random excitation
73K40 Optimization
73K99 None of the above, but in this section

73Lxx Theory of shells
73L05 Non-Euclidean geometry, tensorial methods [See also 53A45.]
73L10 Anisotropic shells
73L15 Shell dynamics
73L20 Vibrations of shells
73L99 None of the above, but in this section

73Mxx Fractural mechanics
73M05 Brittle fracture, cracks
73M10 Fatigue
73M15 Ductile fracture
73M20 Material instability
73M99 None of the above, but in this section

73Nxx Geophysical solid mechanics [See also 86–XX.]
73N05 Global dynamics
73N10 Earthquake problems
73N99 None of the above, but in this section

73Pxx Biomechanics of solids
73P05 Mathematical models of biological materials
73P10 Mechanics response
73P99 None of the above, but in this section

73Q05 Soil mechanics

73R05 Electromagnetic elasticity

73Sxx Micromechanics of solids
73S05 Dislocation theory
73S99 Other micromechanics

73T05 Contact problems

73U05 Thermomechanics of solids [See also 73B30.]

76–XX FLUID MECHANICS {For general continuum mechanics, see 73Bxx, or other parts of 73–XX.}

76–01 Elementary exposition, textbooks
76–02 Advanced exposition (research surveys, monographs, etc.)
76–03 Historical (must also be assigned at least one classification number from Section 01)
76–04 Explicit machine computation and programs (not the theory of computation or programming)
76–05 Experimental papers
76–06 Proceedings, conferences, etc.

76Axx Foundations, constitutive equations, rheology [See also 35L65.]
76A02 Foundations
76A05 Non-Newtonian fluids
76A10 Viscoelastic fluids
76A60 Computational methods
76A99 None of the above, but in this section

76Bxx Incompressible inviscid fluids, potential theory
76B05 Airfoil theory
76B10 Jets and cavities, cavitation, free-streamline theory, water-entry problems, hydrofoil theory
76B15 Water waves, gravity waves; dispersion and diffraction, nonlinear interaction
76B20 Ship waves
76B25 Solitary and cnoidal waves
76B35 Random waves
76B40 Added mass computations
76B99 None of the above, but in this section

76Cxx Incompressible inviscid fluids, vorticity flows
76C05 Vorticity flows
76C10 Internal waves
76C15 Atmospheric waves
76C20 Rossby waves
76C99 None of the above, but in this section

76Dxx Incompressible viscous fluids
76D05 Navier-Stokes equations [See also 35Q10.]
76D07 Stokes flows
76D10 Boundary-layer theory
76D15 Boundary-layer separation and reattachment
76D20 Higher-order effects in boundary layers
76D25 Wakes and jets
76D30 Singular perturbation problems
76D35 Random waves
76D99 None of the above, but in this section

76Exx Hydrodynamic stability
76E05 Stability of parallel flows
76E10 Inertial instability
76E15 Convective instability
76E20 Instability of geophysical and astrophysical flows
76E25 Magnetohydrodynamic and electrohydrodynamic instabilities
76E30 Nonlinear effects
76E99 None of the above, but in this section

76Fxx Turbulence [See also 58F13, 58F27, 60Gxx, 60Jxx.]
76F05 Homogeneous isotropic turbulence
76F10 Shear flows
76F99 None of the above, but in this section

76Gxx General aerodynamics and subsonic flows
76G05 Hodograph methods
76G10 Kármán-Tsien approximation
76G15 Iterative methods
76G20 Free-streamline theory
76G99 None of the above, but in this section

76H05 Transonic flows, limit lines

76Jxx Supersonic flows
76J05 Hodograph methods
76J10 Method of characteristics
76J99 None of the above, but in this section

76K05 Hypersonic flows

76L05 Shock waves and blast waves [See also 73D05.]

76M05 Nonhomentropic flows of compressible fluids

76Nxx Compressible fluids and gas dynamics, general
76N05 Boundary layer theory
76N10 Compressible fluids, general
76N15 Gas dynamics, general
76N99 None of the above, but in this section

76P05 Rarefied gas flows, Boltzmann equation [See also 82A05.]

76Q05 Hydrodynamic sound, acoustics

76Rxx Diffusion and convection [See also 60J60.]
76R05 Forced convection
76R10 Free convection
76R99 None of the above, but in this section

76S05 Flows in porous media; filtration; seepage
76T05 Two-phase and multiphase flows
76U05 Rotating fluids
76V05 Stratified and reacting fluids
76W05 Magnetohydrodynamics and electrohydrodynamics
76X05 Ionized gas flow in electromagnetic fields; plasmic flow
76Y05 Quantum hydrodynamics and relativistic hydrodynamics [See also 83C55, 85A30.]
76Zxx Biological fluid mechanics
76Z05 Physiological flows
76Z10 Biopropulsion in water and in air
76Z99 None of the above, but in this section

78–XX OPTICS, ELECTROMAGNETIC THEORY {For quantum optics, see 81K05.}
78–01 Elementary exposition, textbooks
78–02 Advanced exposition (research surveys, monographs, etc.)
78–03 Historical (must also be assigned at least one classification number from Section 01)
78–04 Explicit machine computation and programs (not the theory of computation or programming)
78–05 Experimental papers
78–06 Proceedings, conferences, etc.
78A02 Foundations
78A05 Geometric optics
78A10 Physical optics
78A15 Electron optics
78A20 Space charge waves
78A25 Electromagnetic theory, general
78A30 Electro- and magnetostatics
78A35 Motion of charged particles
78A40 Waves and radiation
78A45 Diffraction, scattering [See also 34E20 for WKB methods.]
78A50 Antennas, wave-guides
78A55 Technical applications
78A60 Lasers, masers, optical bistability [See also 81K05.]
78A70 Biological applications [See also 92A09, 92A27.]
78A97 Mathematically heuristic optics and electromagnetic theory (must also be assigned at least one other classification number in this section)
78A99 Miscellaneous topics

80–XX CLASSICAL THERMODYNAMICS, HEAT TRANSFER {For thermodynamics of solids, see 73B30.}
80–01 Elementary exposition, textbooks
80–02 Advanced exposition (research surveys, monographs, etc.)
80–03 Historical (must also be assigned at least one classification number from Section 01)
80–04 Explicit machine computation and programs (not the theory of computation or programming)
80–05 Experimental papers
80–06 Proceedings, conferences, etc.
80A05 Foundations
80A10 Classical thermodynamics
80A15 Thermodynamics of mixtures
80A20 Heat and mass transfer
80A25 Combustion, interior ballistics
80A30 Chemical kinetics [See also 92A09, 92A40.]
80A32 Chemically reacting flows [See also 92A09, 92A40.]
80A35 Mathematically heuristic classical thermodynamics (must also be assigned at least one other classification number in this section)
80A99 Miscellaneous topics

81–XX QUANTUM MECHANICS
81–01 Elementary exposition, textbooks
81–02 Advanced exposition (research surveys, monographs, etc.)
81–03 Historical (must also be assigned at least one classification number from Section 01)
81–04 Explicit machine computation and programs (not the theory of computation or programming)
81–05 Experimental papers
81–06 Proceedings, conferences, etc.

81Bxx Axiomatics, foundations, philosophy
81B05 General
81B10 Logical foundations of quantum mechanics
81B99 None of the above, but in this section

81Cxx General mathematical topics and methods in quantum mechanics
81C05 Closed and approximate solutions to the Schrödinger, Dirac, Klein-Gordon and other quantum mechanical equations
81C10 Selfadjoint operator theory in quantum mechanics; essential selfadjointness of the Hamiltonian
81C12 Perturbation theory for operators
81C15 Perturbation theory for differential equations; WKB techniques
81C20 Probabilistic methods in quantum mechanics, including stochastic electrodynamics
81C30 Feynman integrals and graphs; applications of algebraic topology and algebraic geometry to these problems [See also 14D05, 32B30.]
81C35 Path integrals [See also 28C20, 58D30.]
81C40 General group representations motivated by physics but not covered by Section 81Gxx below; representations of concrete classical groups such as $SL(n,C)$, $U(p,q)$, etc. [See also 20C35, 22E70.]
81C99 None of the above, but in this section

81Dxx General quantum mechanics
81D05 Commutation relations
81D10 Bethe-Salpeter equation
81D15 Current algebra
81D20 Broken symmetries
81D25 Covariant wave equations
81D30 Coherent states
81D99 None of the above, but in this section

81Exx Quantum field theory
81E05 Axiomatic quantum field theory; operator algebras
81E10 Constructive quantum field theory; models of quantum fields (including Yang-Mills theories)
81E15 Renormalization theory
81E20 Field theory on curved space backgrounds [See also 83C47.]
81E25 Lattice theories
81E99 None of the above, but in this section

81Fxx Scattering theories
81F05 2-body potential scattering theory [See also 34E20 for WKB methods.]
81F10 n-body potential scattering theory
81F15 S-matrix theory, etc.
81F20 Particle scattering theories
81F30 Dispersion theory, dispersion relations
81F99 None of the above, but in this section

81Gxx Particle physics (this covers all kinds of particles and interactions)
81G05 Strong interaction
81G10 Electromagnetic interaction
81G15 Weak interaction
81G20 Application of group theory to elementary particles, including grand unification and supersymmetry {For supergravity, see 83E50.}
81G25 Other elementary particle theory
81G30 Applications of group theory to nuclear physics
81G35 Other nuclear physics
81G40 Applications of group theory to atomic physics
81G45 Other atomic physics
81G50 Applications of group theory to molecular physics
81G55 Other molecular physics
81G99 None of the above, but in this section

81Hxx Quantum mechanics of many-body systems
81H10 Nuclear structure [See also 81G35.]
81H20 Solid state band theory
81H99 None of the above, but in this section

81J05 Superconductivity and superfluidity
81K05 Quantum optics

81L05 Quantum electrodynamics
81M05 Relativistic theory
81N05 Mathematically heuristic quantum mechanics (must also be assigned at least one other classification number in this section)

82–XX STATISTICAL PHYSICS, STRUCTURE OF MATTER

82–01 Elementary exposition, textbooks
82–02 Advanced exposition (research surveys, monographs, etc.)
82–03 Historical (must also be assigned at least one classification number from Section 01)
82–04 Explicit machine computation and programs (not the theory of computation or programming)
82–05 Experimental papers
82–06 Proceedings, conferences, etc.
82A05 Mathematical general statistical mechanics
82A15 Mathematical quantum statistical mechanics
82A25 Phase transitions
82A30 Statistical thermodynamics [See also 80–XX.]
82A31 Stochastic methods
82A35 Irreversible thermodynamics, including Onsager-Machlup theory
82A40 Kinetic theory of gases
82A42 Random media
82A43 Percolation
82A45 Plasma
82A50 Liquids
82A51 Polymers
82A55 Solids
82A57 Disordered materials, including liquid crystals and spin glasses
82A60 Crystals {For crystallographic group theory, see 20H15.}
82A65 Metals
82A67 Lattice statistics
82A68 Lattice models
82A70 Transport processes [See also 85A25.]
82A75 Nuclear reactor theory
82A77 Mathematically heuristic statistical physics (must also be assigned at least one other classification number in this section)
82A99 Miscellaneous topics

83–XX RELATIVITY

83–01 Elementary exposition, textbooks
83–02 Advanced exposition (research surveys, monographs, etc.)
83–03 Historical (must also be assigned at least one classification number from Section 01)
83–04 Explicit machine computation and programs (not the theory of computation or programming)
83–05 Experimental papers
83–06 Proceedings, conferences, etc.
83A05 Special relativity
83B05 Observational and experimental questions
83Cxx General relativity
83C05 Einstein's equations
83C10 Equations of motion
83C15 Closed form solutions
83C20 Classes of solutions
83C25 Approximation procedures, weak fields
83C30 Asymptotic procedures (radiation, news functions, etc.)
83C35 Gravitational waves
83C40 Groups of motions, invariance groups, conservation laws, etc.
83C45 Quantization of the gravitational field
83C47 Quantum field theory on curved space-times [See also 81E20.]
83C50 Electromagnetic fields
83C55 Hydrodynamics [See also 76Y05.]
83C99 None of the above, but in this section
83D05 Relativistic gravitational theories other than Einstein's
83Exx Unified field theories
83E05 Geometrodynamics
83E10 Asymmetric field theories
83E15 Five- and higher-dimensional theories
83E50 Supergravity {For supersymmetry, see 81G20.}
83E99 None of the above, but in this section
83F05 Cosmology

85–XX ASTRONOMY AND ASTROPHYSICS {For celestial mechanics, see 70F15.}

85–01 Elementary exposition, textbooks
85–02 Advanced exposition (research surveys, monographs, etc.)
85–03 Historical (must also be assigned at least one classification number from Section 01)
85–04 Explicit machine computation and programs (not the theory of computation or programming)
85–05 Experimental papers
85–06 Proceedings, conferences, etc.
85A04 General
85A05 Galactic and stellar dynamics
85A10 Astronautics
85A15 Stellar structure
85A20 Stellar atmospheres
85A25 Radiative transfer
85A30 Hydrodynamic and hydromagnetic problems [See also 76Y05.]
85A35 Statistical astronomy
85A40 Cosmology {For relativistic cosmology, see 83F05.}
85A45 Radio astronomy
85A99 Miscellaneous topics

86–XX GEOPHYSICS [See also 73Nxx, 76U05, 76V05.]

86–01 Elementary exposition, textbooks
86–02 Advanced exposition (research surveys, monographs, etc.)
86–03 Historical (must also be assigned at least one classification number from Section 01)
86–04 Explicit machine computation and programs (not the theory of computation or programming)
86–05 Experimental papers
86–06 Proceedings, conferences, etc.
86A04 General
86A05 Hydrology, hydrography, oceanography [See also 76B15, 76B20, 76B25, 76C15, 76E20, 76Q05, 76Rxx, 76U05.]
86A10 Meteorology [See also 76Bxx, 76C15, 76E20, 76N15, 76Q05, 76Rxx, 76U05, 76V05.]
86A15 Seismology [See also 73Dxx, 73Fxx, 73Mxx, 73Nxx, 73Q05.]
86A20 Potentials, prospecting [See also 76S05, 76W05.]
86A25 Geo-electricity and geomagnetism [See also 78A25.]
86A30 Geodesy, mapping problems
86A35 Atmospheric physics [See also 76C15, 76C20, 76E20, 76Rxx, 76U05, 76V05.]
86A60 Geological problems
86A99 Miscellaneous topics

90–XX ECONOMICS, OPERATIONS RESEARCH, PROGRAMMING, GAMES

90–01 Elementary exposition, textbooks
90–02 Advanced exposition (research surveys, monographs, etc.)
90–03 Historical (must also be assigned at least one classification number from Section 01)
90–04 Explicit machine computation and programs (not the theory of computation or programming)
90–06 Proceedings, conferences, etc.
90Axx Mathematical economics {For econometrics, see 62P20.}
90A05 Decision theory [See also 62Cxx, 90B50, 90D35.]
90A06 Preferences
90A07 Theory of group behavior
90A08 Social choice, voting
90A09 Portfolio theory and financial economics
90A10 Utility theory
90A11 Production models
90A12 Price theory
90A14 Equilibrium theory
90A15 Static economic models
90A16 Dynamic economic models

90A17 Multisectoral models
90A19 Statistical models
90A20 Economic time series analysis [See also 62M10.]
90A30 Applications to problems of human society (air pollution, etc.)
90A99 None of the above, but in this section

90Bxx Operations research and management science
90B05 Logistics, inventory, storage
90B10 Flows in networks, deterministic
90B15 Flows in networks, probabilistic
90B20 Highway traffic
90B22 Queueing theory, service models, etc. [See also 60K25.]
90B25 Reliability and maintenance [See also 60K20, 62N05.]
90B30 Production theory
90B35 Scheduling theory
90B40 Search theory
90B50 Decision theory, including multiple objectives [See also 90A05, 90C31, 90D35.]
90B99 None of the above, but in this section

90Cxx Mathematical programming {For papers emphasizing calculus of variations or involving abstract spaces, see 49Dxx. For numerical methods, see 65K05.}
90C05 Linear programming
90C06 Large scale linear programming
90C08 Special problems of linear programming (transportation and multi-index problems, etc.)
90C09 Boolean programming
90C10 Integer programming
90C11 Mixed integer programming
90C15 Programming in conditions of uncertainty, stochastic programming
90C20 Quadratic programming
90C25 Convex programming
90C30 Nonlinear programming
90C31 Sensitivity, parametric programming, multi-objective programming
90C32 Fractional programming
90C33 Linear and nonlinear complementarity problems
90C35 Network programming, programming in networks
90C39 Dynamic programming [See also 49Cxx.]
90C40 Markov decision processes; Markov programming and Markov renewal programming
90C48 Programming in abstract spaces
90C50 Applications of mathematical programming
90C99 None of the above, but in this section

90Dxx Game theory [See also 49A45, 68D27.]
90D05 2-person games
90D10 *n*-person games, noncooperative
90D12 *n*-person games, cooperative, solution concepts
90D13 Infinite games
90D15 Multistage games, stochastic [See also 93E05.]
90D20 Multistage games, recursive
90D25 Differential games
90D26 Pursuit and evasion games
90D30 Utility theory [See also 90A10.]
90D35 Decision theory [See also 62Cxx, 90A05, 90B50.]
90D40 Game theory models [See also 65Cxx, 68Cxx, 68Jxx.]
90D42 Positional and lattice games
90D45 Applications of game theory
90D99 None of the above, but in this section

92–XX BIOLOGY AND BEHAVIORAL SCIENCES

92–01 Elementary exposition, textbooks
92–02 Advanced exposition (research surveys, monographs, etc.)
92–03 Historical (must also be assigned at least one classification number from Section 01)
92–04 Explicit machine computation and programs (not the theory of computation or programming)
92–06 Proceedings, conferences, etc.
92A05 General biology [See also 73–XX, 76–XX, in particular 73Pxx, 76Zxx.]
92A07 Medical applications of biology
92A09 Physiology, biochemistry [See also 76–XX, in particular 76Zxx, and 78A70, 80A30, 80A32, 92A27, 92A40.]
92A10 Genetics
92A15 Population dynamics, epidemiology
92A17 Ecology
92A20 Sociology
92A25 Psychology
92A27 Psychophysics, psychophysiology [See also 92A09.]
92A40 Chemistry [See also 80A30, 80A32, 92A05, 92A09.]
92A90 Other applications

93–XX SYSTEMS THEORY; CONTROL {For optimal control, see 49–XX.}

93–01 Elementary exposition, textbooks
93–02 Advanced exposition (research surveys, monographs, etc.)
93–03 Historical (must also be assigned at least one classification number from Section 01)
93–04 Explicit machine computation and programs (not the theory of computation or programming)
93–06 Proceedings, conferences, etc.

93Axx General
93A05 Axiomatic system theory
93A10 General systems
93A13 Hierarchical systems
93A15 Large scale systems
93A20 Cascaded systems
93A99 None of the above, but in this section

93Bxx Controllability, observability, and system structure
93B05 Controllability
93B07 Observability
93B10 Canonical structure
93B15 Realizability of systems from input-output data
93B17 Transformation
93B20 Minimal systems representations
93B25 Algebraic theory of time-invariant systems
93B30 System identification
93B35 Sensitivity
93B40 Computational methods
93B50 Synthesis problems
93B55 Pole and zero placement problems
93B99 None of the above, but in this section

93Cxx Control systems, guided systems
93C05 Linear
93C10 Nonlinear
93C15 Systems governed by ordinary differential equations
93C20 Systems governed by partial differential equations
93C22 Systems governed by integral equations
93C25 Systems in abstract spaces
93C30 Systems governed by functional relations other than differential or integral equations
93C35 Multivariable systems
93C40 Adaptive
93C45 Time-invariant
93C50 Time-dependent
93C55 Discrete-time
93C57 Sampled-data
93C60 Continuous-time
93C99 None of the above, but in this section

93Dxx Stability
93D05 Ljapunov stability
93D10 Popov-type stability of feedback systems
93D15 Stabilization of systems by feedback
93D20 Asymptotic stability
93D25 Input-output approaches
93D99 None of the above, but in this section

93Exx Stochastic systems and control
93E03 Stochastic systems, general
93E05 Stochastic games, stochastic differential games
93E10 Estimation and detection
93E11 Filtering
93E12 System identification
93E14 Data smoothing
93E15 Stochastic stability
93E20 Optimal stochastic control

93E25 Computational methods
93E99 None of the above, but in this section

94-XX INFORMATION AND COMMUNICATION, CIRCUITS

94-01 Elementary exposition, textbooks
94-02 Advanced exposition (research surveys, monographs, etc.)
94-03 Historical (must also be assigned at least one classification number from Section 01)
94-04 Explicit machine computation and programs (not the theory of computation or programming)
94-06 Proceedings, conferences, etc.

94Axx Communication, information
94A05 Communication theory [See also 60G35.]
94A11 Application of orthogonal functions in communication
94A12 Characterization of signals
94A14 Modulation and demodulation
94A15 Information theory, general [See also 62B10.]
94A17 Measures of information, entropy
94A24 Coding theorems (Shannon theory)
94A29 Source coding
94A34 Distortion theory
94A40 Channel theory
94A50 Theory of questionnaires
94A99 None of the above, but in this section

94Bxx Algebraic theory of error-correcting codes
94B05 Linear codes, general
94B10 Convolutional codes
94B15 Cyclic codes
94B20 Burst-correcting codes
94B25 Combinatorial codes
94B30 Majority codes
94B35 Decoding
94B40 Arithmetic codes
94B45 Prefix, length-variable, comma-free codes
94B50 Synchronization error-correcting codes
94B60 Other types of codes
94B70 Error probability
94B99 None of the above, but in this section

94Cxx Circuits, networks
94C05 Analytic circuit theory
94C10 Switching theory, applications of Boolean algebra
94C15 Applications of graph theory [See also 05Cxx, 68D90, 68E10.]
94C30 Applications of design theory [See also 05Bxx.]
94C99 None of the above, but in this section

94D05 Fuzzy sets and logic (in connection with questions of Section 94) [See also 03B52, 03E72.]

ERRATA AND ADDENDA

43 #6313: Remeslennikov, V. N.
In the title "subcyclic" should read "polycyclic".

45 #174: Kogan, L. A.
In column 1, line −3 "x" should read "χ". In column 1, line −2 "for odd k)." should read "for odd $k>1$), is finite." In column 2, line 4 the two occurrences of "x" should read "χ".

45 #1875: Kaur, Gurnam
In line −6 "J. A. H." should read "John".

45 #3322: Ljunggren, W.
In line −2 "(1942)" should read "(1943)".

45 #3346: Kaufman, R. M.
In line −2 "The authors derive" should read "The author derives".

45 #5029: Varvak, L. P.
45 #8287: Varvak, L. P.
In all occurrences "Grandy" should read "Grundy".

45 #6738: Stephens, N. M.
In line 3 "p^8" should read "p^q".

45 #7115: Raghavacharyulu, I. V. V.; Tekumalla, A. R.
In display (A) "$U_{n+N-1}^{(N)}$" should read "$U_{n+N-i}^{(N)}$".

46 #5428: Mazurov, V. D.
The title should read "Finite simple groups in which the centralizer of every involution has 2-length 1."

48 #13320: [Control in space]
In the paper on pp. 154–177 "optimal surface" should read "optical surface".

51 #824: Bhattacharyya, P.
In line −2 "the reviewer" should read "J. C. Burkill".

51 #13873: Guy, R. K.; Selfridge, J. L.
In paragraph 2, line 2 "$d_5 5=$" should read "$d_5=5$". In lines 7–8 the three occurrences of "|" should read "/". In line 11 "d_q" should read "d_9".

52 #13627: Alter, Ronald; Curtz, Thaddeus B.
In line 1 "[MR **49** #2504]" should read "[MR **49** #2527]".

55 #4958: Zuno, I. E.; Tropp, È. A.
The first author's name should read "Zino, I. E."

56 #2708: Reiffen, Hans-Jörg; Trapp, Heinz Wilhelm
The review number should read "2708".

56 #7023: Deniau, Claude; Oppenheim, Georges

56 #7024: Lebart, Ludovic
In the heading "Italian" should read "Spanish".

56 #9602: Cornes, James; Markovski, B. L.; Rizov, V. A.
The first author's name should read "Corones, James".

56 #15742: Berman, S. D.; Podgornyĭ, A. G. [Pidgornĭ, O. G.]
In the heading "632–637" should read "632–634".

58 #2321: Jensen, Helge Elbrønd
80f:46059: Jensen, Helge Elbrønd
For a correction to these reviews see MR 82k:46086.

58 #10722: Fried, M; Sacerdote, G. [Sacerdote, George S.]
The existing review consists of several nonconsecutive sentences from the paper and may not do full justice to the paper, which can be regarded as a sequel to the pioneering papers of J. Ax and S. Kochen [Amer. J. Math. **87** (1965), 605–630; MR **32** #2401; ibid. **87** (1965), 631–648; MR **32** #2402; Ann. of Math. (2) **83** (1966), 437–456; MR **34** #1262] and of Ax [ibid. (2) **85** (1967), 161–183; MR **35** #126; ibid. (2) **88** (1968), 239–271; MR **37** #5187]. By using direct quantifier-elimination methods the present authors attempt to come to grips with the finite number of exceptions which occur in many of the theorems in the papers quoted.

58 #13209: Marsden, J. E.; McCracken, M.
In the author line delete "Oster, G."

58 #30107b: Ivanova, G. Ja.; Popova, G. I.
In the heading "73–383" should read "73–83".

80d:01004: Seidenberg, A.
In lines 8–9 the reviewer stated that "the data used on Babylonian mathematics use texts published before 1946". This is incorrect; on p. 324 the author refers to Susa mathematical texts published in 1961.

80d:93081: Bertsekas, Dimitri P.; Shreve, Steven E.
In the heading "Mathematical Systems in Economics" should read "Mathematics in Science and Engineering".

80f:73042: Philippin, Gérard A.
The reviewer's remarks should be replaced by the following:
While the reviewer feels that the author's published proof should include more details, he agrees that it is correct with the inclusion of additional details.

80k:12022: Bertrandias, Françoise
In line −2 "J.-P. Ferton" should read "J.-P. Bertrandias".

1980 Author Index
On page 193 the columns should be exchanged.

81a:05011: Olive, Gloria
The reviewer wishes to substitute the following for the original review:
A function $B_k(c)$ is said to be binomial if $B_k(c+d)=$

$\Sigma_j B_j(c)B_{k-j}(d)$. The author here is not restricting her attention to polynomials [cf. G.-C. Rota and R. Mullin, *Graph theory and its applications* (Madison, Wis., 1969), pp. 167–213, Academic Press, New York, 1970; MR **43** #65; A. M. Garsia, Linear and Multilinear Algebra **1** (1973), no. 1, 47–65; J. P. Fillmore and S. G. Williamson, ibid. **1** (1973), no. 1, 67–80; MR **47** #8321ab].

It is shown that a function is binomial if and only if it has a representation as

$$\Sigma\left(\binom{c}{j_0 j_1 \cdots j_k} b_0^{j_0} b_1^{j_1} \cdots b_k^{j_k}\right)$$

summed over $\Sigma j_m = c$, $\Sigma m j_m = k$, where the b_i are any elements in a ring.

The author recursively defines a generalized power $c_{(b)}^k$ by $0_{(b)}^k \equiv 0^k$ and $(c+1)_{(b)}^k \equiv \Sigma_{h=0}^k c_{(b)}^h \{k\}/\{h\}\{k-h\}$ where $\{n\} = 1(1+b)\cdots(1+b+\cdots+b^{n-1})$ and $\{0\}=1$. The author calls these generalized binomial coefficients b-analogues, in contradistinction to q-analogues. b-analogues of Stirling numbers of the second kind and corresponding identities are provided which reduce to standard identities letting $b=0$.

81b:05007: **Hayasaka, Takanori; Saito, Sadao**
The reviewer now notes that this article is in fact an original report of the discovery of Langford (4,24)-sequences under the generalized definition given in the article. In particular, these sequences are different than those the authors treated earlier [Discrete Math. **28** (1979), no. 1, 81–88; MR 80i:05004].

81c:15016: **Kazimirskiĭ, P. S.; Zelisko, V. R.**
The title should read "On isolation of a regular multiplier with given Smith form, from a polynomial matrix."

81e:46004: **Iwata, Kazuo**
81f:93024: **Hikita, Hiromitsu**
81m:60060: **Nagai, Takeaki**
81m:62149: **Jojima, Kuniyuki; Asano, Chooichiro**
82b:42015: **Anderson, Kenneth F.; John, Russel T.**
82b:42016: **Fava, N. A.; Gatto, E. A.; Guitiérrez, C.**
82c:28034: **Kwiatkowski, J.**
82d:06014: **Kobayashi, Yuji**
82d:42010: **Goffman, Casper; Waterman, Daniel**
82d:42014: **Chang, S. Y. A.**
82d:46016: **Aytuna, A.; Terzioğlu, T.**
82d:46020: **Behrends, Ehrhard; Schmidt-Bichler, Ursula**
82d:46038: **Evans, Richard**
82e:46039: **Bruna, Joaquim**
82e:60027: **Moynihan, Richard**
In the heading "(1980)" should read "(1980/81)".

81e:53034: **Thas, C.**
In line 3 "a one-dimensional" should read "an l-dimensional".

81h:14010: **Danilov, V. I.**
The following addendum has been provided by the reviewer:
The author uses the local decomposition theorem to prove the following global result. Theorem 1: Let f: $Y \to X$ be a projective birational morphism of smooth algebraic spaces over a field k satisfying $\dim f^{-1}(x) \leqslant 1$ for each point $x \in X$. Then f can be decomposed into a sequence of monoidal transformations with smooth centers of codimension 2.

81h:90134: **Deshpande, Dilip V.**
The name of the second author of the paper, Stanley Zionts, was inadvertently omitted from the heading. In line 7 of the text "the author investigates" should read "the authors investigate". In lines 9–10 "He proposes" should read "They propose".

81i:26013: **Hou, Ming Shu**
In the last two lines, from "$b \geqslant 0$" to the end of the review should read "$y(0) = b \geqslant 0$. Equality in (*) holds if and only if $y = kx + b$ where $k \geqslant -b/a$."

81i:28004: **v. Weizsäcker, Heinrich**
In line 3 "$2^{\aleph_0}$" should read "$< 2^{\aleph_0}$".

81j:44010a: **Wu, Xue Mou**
81j:44010b: **Wu, Xue Mou**
81k:03052a: **Zhou, Hao Xuan**
81k:03052b: **Zhou, Hao Xuan**
81m:05030: **Zhang, Li Qian**
81m:65020: **Wang, Neng Chao**
81m:73028: **Yun, Tian Quan**
In the heading "**1979**" should read "**7** (1979)".

81k:53010: **Chern, Shiing Shen; Griffiths, Phillip A.**
In line 7 "hypersurfaces" should read "hyperplanes".

81k:65146: **Ivanov, V. V.; Kotenkova, G. N.**
81m:30037: **Mandžavidze, G. F.**
81m:35052: **Ivanec, T. [Iwaniec, Tadeusz]**
81m:35053: **Ševčenko, V. I.**
81m:86002: **Marčuk, G. I.; Kordzadze, A. A.; Zalesnyĭ, V. B.**
82a:32008: **Janušauskas, A.**
82a:35049: **Bliev, N. K.**
82a:45012: **Džuraev, A.**
82a:53066: **Lavrent'ev, M. M.**
In the last line "MR 81f:76018" should read "MR 81j:73002".

81m:14010: **Singh, Balwant**
The reviewer stated that the stability of $\nu^*(J)$ under permissible blowing up implies an isomorphism between $k' \otimes_k \mathrm{gr}_M(R/J)$ and $\mathrm{gr}_{M'}(R'/J')$. This is not correct. Hence, starting in line 9 from "Through the work" to the end of the review should be replaced by: "The author proves that the stability of $\nu^*(J)$ implies that of $\nu^{**}(J)$."

81m:20030: **Webb, U. H. M.**
In referring to the author, "he" should read "she".

81m:35030: **Šackiĭ, V. P.**
In line 9 the two occurrences of "D_γ^{2k}" should read "D_ν^{2k}".

81m:70021: **Calvo Pinilla, Manuel**
The following paragraph should be added to the review:
{The paper submitted to the proceedings has appeared in another journal [Rev. Acad. Ci. Zaragoza (2) **30** (1975), no. 1-2, 53–60; MR **53** #9780].}

81m:94034: **Kuzjurin, N. N.**
In line –4 "probability" should read "equal probability".

82a:20082: **Länger, H. [Länger, Helmut]**
In the last line the numbers of a's and b's in $g(a,\cdots,a,b,\cdots,b)$ are $n/2$ and $n/2+1$, respectively.

82a:35003a: **Mikhaĭlov, V. P. [Mihaĭlov, V. P.]**
82a:35003b: **Mikhaĭlov, V. [Mihaĭlov, V. P.]**
In the heading insert following the year of publication: "Distributed by Imported Publications, Inc., 320 W. Ohio St., Chicago, Ill. 60610."

82a:60038: **Kuelbs, J.**
In line 2 "b" should read "β".

82a:70009: **Fomin, V. N.**
In line 8 "side condition" should read "test".

82a:76033: **Rožděstvenskiĭ, B. L.**
In line 4 "$D = \partial(\psi,\omega)/\partial(x,y)$" should read "$D = \det \partial(\psi,\omega)/\partial(x,y)$".

82b:35091: **Lokšin, A. A.**
In line −4 "$t=0$" should read "$t=|x|$".

82b:90127: **Kruger, A. Ja.; Morduhovič, B. Š.**
In line 3 "$r_{x_0}(x)$" should read "$r^{\varepsilon}_{x_0}(x)$".

82c:14028: **Kawamaka, Yujiro; Viehweg, Eckart**
The second remark of the reviewer is not true in general. There exists a finite unramified covering of X which admits a (bimeromorphic) fiber bundle structure described there. However, as for X itself, one can just show that the Iitaka fibration of X is bimeromorphically equivalent to an analytic fiber bundle with fiber being a complex torus, but the base variety S is not always of general type.

82c:28004: **Scozzafava, Romano**
The following remark by the reviewer was inadvertantly omitted:
(0) As proved by A. Sobczyk and P. C. Hammer [Duke Math. J. **11** (1944), 839–846; MR **6**, 129; see also D. Maharam, Sankhyā Ser. A **38** (1976), 44–59; MR **57** #12810], the range of μ equals $[0,\mu(\Omega)]$ provided μ is strongly nonatomic. This result implies Theorem (i).

82c:33002: **Andrews, George E.**
In the second displayed formula "$=$" should read "$\times$". In line −14 "$\Pi_{i<i\neq j\leq n}$" should read "$\Pi_{1\leq i\neq j\leq n}$". In line −11 "$e^{i\pi\theta_j}$" should read "$e^{ik\theta_j}$".

82c:45004: **Ramm, A. G.**
The reviewer wishes to substitute the following for the original review:
For the integral equation $Rh = \int_\Delta R(y,z)h(z)\,dz = f(y)$, $y\in\Delta=[t-T,t]$, $T>0$, a class $\mathfrak{R}$ is defined for the kernel $R(x,y)$ by $R(x,y)=\int_\Lambda r(\lambda)\varphi(x,y,\lambda)\,d\rho(\lambda)$, $r(\lambda)=(r_{ij}(\lambda))=(P_{ij}(\lambda)Q_{ij}^{-1}(\lambda))$, $1\leq i,j\leq d$. Here $\varphi(x,y,\lambda)$, $d\rho(\lambda)$, and Λ are the spectral kernel, the spectral measure of a scalar selfadjoint operator L, and the spectrum of L, respectively. Let $R(x,y)\in\mathfrak{R}$, $f\in H_a$, $\alpha=(n-m)/2$ and assume that $P_{ij}, Q_{ij}>0, \lambda\in I$, $\det A(\lambda)>0$ for $\lambda\in I$, where $A_{ij}(\lambda)=P_{ij}(\lambda)Q_{ij}^{-1}(\lambda)Q(\lambda)$, m is even and $r(\lambda)$ is ρ-almost everywhere positive definite.
For this class of systems of integral equations, the author obtains the explicit formula for the solution, and proves the existence, uniqueness and stability of the solution. The theory does not require the factorization of the matrix functions. Some remarks are given concerning the upperbound of the eigenvalue and the formula for the error estimate.

82c:54002: **Howes, Norman R.**
In column 1, line −6 "MR" should read "Zbl".

82c:73010: **Oleĭnik, O. A.; Iosif'jan, G. A.; Tavhelidze, I. N.**
In the title "solutions of" should read "solutions of equations of".

82c:81125: **Maleki, Nasser; Mecek, Joseph**
The second author's last name should read "Macek".

82d:03013: **Resnik, Michael D.**
In paragraph 2, line −4 "completeness" should read "existence".

82d:10059: **Raitzin, Carlos**
The reviewer acknowledges that his remarks are not correct. However, the material in the present paper is essentially the same as that in two Spanish language papers by the same author, which were reviewed in great detail [Rev. Ingr. **1** (1979), no. 0, 37–43; MR 82e:10074; ibid. **1** (1979), no. 1, 5–15; MR 82e:10075]. Those two reviews effectively provide an accurate and informative appraisal of the present paper.

82d:60061: **Takahashi, S. [Takahashi, Shôichi]**
The bracketed form of the author's name should read "[Takahashi, Shigeru]".

82e:00002: **Amir-Moéz, Ali R.**
In the heading the publisher should read "Western Printing Co., Lubbock, Texas".

82e:06003: **Xu, Li Zhi**
82e:16017: **Zhou, Bo Xun**
82g:62032: **Su, Chun; Bai, Zhi Dong; Xu, Da Ming**
82g:62053: **Zhang, Yao Ting**
82g:94029: **Yin, Ke Zhen**
82h:42005: **Xie, Ting Fan**
82h:42010: **Wang, Si Lei**
82i:05051: **Zhang, Cun Quan**
In the heading "no. 1, First Issue" should read "First Issue".

82e:22025: **Jakobsen, Hans Plesner**
In line 3 "groups" should read "group". In line −8 "Hilbert space" should read "Hilbert space representation". In the last line "to" should read "as".

82e:47017: **Bozeman, Sylvia T.; Kramarz, Luis**
The beginning of the review should read "The authors give".

82e:53029: **Grozman, P. Ja.**
82e:58005: **Greene, R. E.; Wu, H. [Wu, Hung Hsi]**
The review texts for these two items should be interchanged.

82f:10013: **Pollin, Jack M.; Schoenberg, I. J.**
In the last line "$\equiv$" should read "$\not\equiv$".

82f:10017: **Zenkin, A. A.**
The theorem of G. Pall may be found in Amer. Math. Monthly **40** (1933), 10–18.

82f:58031: **Joseph, D. D.**
In line 5 "$=$" should read "$\neq$".

82f:58032: **Kosel, Ulrich**
In line −4 "branching" should read "bifurcation".

82f:58087: **Ibragimov, N. H.; Šabat, A. B.**
In line 2 "u_z" should read "u_t".

82g:42005a: **Kahane, Jean-Pierre; Katznelson, Yitzhak**
82g:42005b: **Olevskiĭ, A. M.**
In line 11 "H_λ" should read "H^λ".

82i:10012: **Schram, John Michael**
In lines 4 and −4 "consecutive" should be deleted. The paper includes an example of 12 primes using the first rule and one of 15 primes using the second rule.

82i:32042: **van der Put, Marius**
In line −3 "the author" should read "the reviewer".

82i:52026: **Iglesias, Juan E.**
In line −1 "$N(4)$" should read "$N(44)$".

82i:68027: **Schmidt, Günter**

The reviewer wishes to add the following remarks:

The author presents an example of his partial relation algebras $\mathfrak{B}$ which contains, among others, the following Boolean matrices: $R=(0,1)$, ${}^{R}I=(1)$, $I^{R}=\binom{0}{1}$. This clarifies the axioms concerning nonsquare matrices, and how they deviate from the usual relation algebras.

If $P=(Z,G,\theta,a,e)$ is a program where $Z=(A,E)$, $B=A^{\mathsf{T}}E$, etc., then B^* is called its complete behaviour, $S=B^*\wedge\overline{BL}^{\mathsf{T}}$ its terminating behaviour, and $\Sigma=a^{\mathsf{T}}Se$ its effect (Wirkung). A program P is said to be deterministic if B is single-valued. A relation R is called a point set, or vector, or predicate, if $R=RL$. If v $[n]$ is a relation called a precondition ($v=vL$) [postcondition ($n=nL$)], one says P is correct with respect to v and n if $\Sigma^{\mathsf{T}}v\subset n$. The weakest precondition $v_{\max}$ corresponding to a given postcondition n is $v_{\max}=\overline{\Sigma\bar{n}}$. Theorem 7.2: $\Sigma^{\mathsf{T}}v\subset n$ if and only if there exists a predicate $Q=QL$ such that $B^{\mathsf{T}}Q\subset Q$, $v\subset a^{\mathsf{T}}Q$ and $e^{\mathsf{T}}(Q\wedge\overline{BL})\subset n$. In the proof one puts $Q=B^*av$. A concatenation $(C;D)$, where

$$B=\begin{pmatrix}0&C&0\\0&0&D\\0&0&0\end{pmatrix},\qquad a=\begin{pmatrix}I\\0\\0\end{pmatrix},\qquad e=\begin{pmatrix}0\\0\\I\end{pmatrix}$$

is correct if there exists a $Q=(x,y,z)^{\mathsf{T}}$ such that $v\subset x$, $z\subset n$, $C^{\mathsf{T}}x\subset y$, $D^{\mathsf{T}}y\subset z$. It is unclear how B,Q are obtained and what their meaning is. A loop, repeat R until p, where

$$B=\begin{pmatrix}0&R&0\\\bar{p}&0&p\\0&0&0\end{pmatrix},$$

is correct if the same Q exists such that $\bar{p}\wedge y\subset x$, $R^{\mathsf{T}}x\subset y$, $p\wedge y\subset z$.

A graph G is said to be progressively finite if its associated relation B satisfies $\overline{B\bar{X}}\subset X\Rightarrow X=L$. The initial segment $J(B)=J(B)L$ is introduced as a minimal fixed point of a (noncontinuous) functional $\tau(X)=\overline{B\bar{X}}$. The program P is said to be totally correct of type 1, 2, 3, if $v\subset a^{\mathsf{T}}\vee\bigvee_{h=0}^{\infty}\overline{B^hL}\wedge a^{\mathsf{T}}\overline{Sen}$, $v\subset a^{\mathsf{T}}J(B)\wedge a^{\mathsf{T}}\overline{Sen}$, $v\subset\Sigma n=a^{\mathsf{T}}Sen$, respectively. The type $i+1$ follows from type i for $i=1,2$. For deterministic programs there is no difference among the types.

The usual program definition (in any programming language) does not involve any homomorphism, but it does involve the execution definition. In actual programs, concrete states (which are functions from variables into values) are concerned, and the transition function is determined by the execution of all available instructions (assignments, tests, etc.). Here only abstract states are concerned, but what is missing are basic instructions and their execution. No homomorphism can help in this crucial point, because homomorphism only reduces one monadic state function to another one, and does not define any such. Therefore many interesting definitions and results concerning correctness of programs are, probably, only formal without any revelance to actual programs and their correctness.

82j:94007: **Pyt'ev, Ju. P.**

In line −2 "Math." should read "Phys."